Auto Coverage Focus

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Chapter 1 Automobile Insurance Protection

The primary use of automobile insurance is to provide protection against losses incurred as a result of traffic accidents and against liability that could be incurred in an accident. It is coverage for the responsibility for injury or damage to others resulting from the ownership, maintenance, or use of a motor vehicle. Vehicle insurance can cover some or all of the following items; the insured party, the insured vehicle, third parties.

Most states require that drivers have at least some kind of car insurance. Before purchasing auto insurance, drivers must consider a variety of factors including what kind of car, driving record and the amount of money he or she is willing to pay. Understanding the basics of auto insurance is a fundamental part of operating a motor vehicle responsibly so that the car insurance policy will take care of the policyowner's needs in the event of an accident.

Essential Coverage

Everyone who drives needs car insurance, most states require it by law. When a motorist buys car insurance, the policy is based on a variety of factors including what kind of car he or she drives as well as what kind of insurance is chosen. Auto insurance policies are actually a package of different types of insurance coverage.
Step one in understanding an auto insurance policy is to learn the various types of coverage insurance companies offer. Some of this coverage may be required by state statute and some of the coverage may be optional.

The consumer may be protected with different coverage types depending on what coverage the insured purchases. Liability insurance covers claims against the policy holder and generally, any other operator of the insured vehicles provided, do not live at the same address as the policy holder, and are not specifically excluded on the policy. In the case of those living at the same address, they must specifically be covered on the policy. Thus it is necessary for example, when a family member comes of driving age they must be added on to the policy. Liability insurance sometimes does not protect the policy holder if they operate any vehicles other than their own. When someone drives a vehicle owned by another party, the driver is covered under that party's policy. Non-owners policies may be offered that would cover an insured on any vehicle they drive. This coverage is available only to those who do not own their own vehicle and is sometimes required by the government for drivers who have previously been found at fault in an accident.

Liability - This coverage pays for accidental bodily injury and property damages to others. Injury damages include medical expenses, pain and suffering and lost wages. Property damage includes damaged property and automobiles. This coverage also pays

defense and court costs. State laws determine how much liability coverage must be purchased, but one can always get more coverage than the state requires.

Liability coverage provides a fixed dollar amount of coverage for damages that an insured driver becomes legally liable to pay due to an accident or other negligence. For example, if an insured driver drives into a telephone pole and damages the pole, liability coverage pays for the damage to the pole. In this example, the drivers insured may also become liable for other expenses related to damaging the telephone pole, such as loss of service claims (by the telephone company). Liability coverage is available either as a combined single limit policy, or as a split limit policy:

Generally, liability coverage extends when a car is rented. Comprehensive policies ("full coverage") usually also apply to the rental vehicle, although this should be verified beforehand. Full coverage premiums are based on, among other factors, the value of the insured's vehicle. This coverage, however, cannot apply to rental cars because the insurance company does not want to assume responsibility for a claim greater than the value of the insured's vehicle, assuming that a rental car may be worth more than the insured's vehicle.

Combined Single Limit- A combined single limit combines property damage liability coverage and bodily injury coverage under one single combined limit. For example, an insured driver with a combine single liability limit strikes another vehicle and injures the driver and the passenger. Payments for the damages to the other driver's car, as well as payments for injury claims for the driver and passenger, would be paid out under this same coverage.

Split Limits- A split limit liability coverage policy splits the coverages into property damage coverage and bodily injury coverage. In the example given above, payments for the other driver's vehicle would be paid out under property damage coverage, and payments for the injuries would be paid out under bodily injury coverage.
Bodily injury liability coverage is also usually split like this as well-

- Maximum payment per person
- Maximum payment per accident

Collision - This coverage pays for vehicle damages caused by collision with another vehicle or object. Collision coverage provides coverage for an insured's vehicle that is involved in an accident, subject to a deductible. This coverage is designed to provide payments to repair the damaged vehicle, or payment of the cash value of the vehicle if it is not repairable. Collision coverage is optional. Collision Damage Waiver (CDW) is the term used by rental car companies for collision coverage.

Comprehensive - This coverage pays for loss or damage to the insured vehicle that doesn't occur in an auto accident. The types of damages comprehensive insurance covers include loss caused by fire, wind, hail, flood, vandalism or theft. Comprehensive (a.k.a. - Other Than Collision) coverage provides coverage, subject to a deductible, for an insured's vehicle that is damaged by incidents that are not considered Collisions. For example, fire, theft (or attempted theft), vandalism, weather, or impacts with animals are just some types of Comprehensive losses.

Medical Coverage - Pays medical expenses regardless of fault when the expenses are caused by an auto accident.

PIP - Personal Injury Protection (PIP) is required in some states. This coverage pays medical expenses for the insured driver, regardless of fault, for treatment due to an auto accident.

Uninsured Motorist - Pays for the car's damages when an auto accident is caused by a driver who doesn't have liability insurance.

Underinsured Motorist - Pays for the car's damages when an auto accident is caused by someone who has insufficient liability insurance.

Rental Reimbursement - This type of coverage will pay for a rental car if the insured vehicle is damaged due to an auto accident. Often this coverage has a daily allowance for a rental car.

Many insurance policies combine a number of these types of coverage. The first step in choosing insurance is to know the laws in a particular state. This job generally falls upon the agent, to clearly explain the minimum insurance needed for the car.

Underinsured Coverage- This is also known as UM/UIM, provides coverage if another at-fault party either does not have insurance, or does not have enough insurance. In effect, the insured’s insurance company acts as at fault party's insurance company. In the United States, the definition of an uninsured/underinsured motorist, and corresponding coverages, are set by state laws.

Loss of Use- This coverage, also known as rental coverage, provides reimbursement for rental expenses associated with having an insured vehicle repaired due to a covered loss.

Loan/Lease Payoff Coverage- This type coverage is also known as GAP coverage or GAP insurance. It was established in the early 1980's to provide protection to consumers based upon buying and market trends. Due to the sharp decline in value immediately following purchase, there is generally a period in which the amount owed on the car loan exceeds the value of the vehicle, which is called "upside-down" or negative equity. Thus, if the vehicle is damaged beyond economical repair at this point, the owner will still owe potentially thousands of dollars on the loan. The escalating price of cars, longer-term auto loans, and the increasing popularity of leasing gave birth to GAP protection. GAP waivers provide protection for consumers when a "gap" exists between the actual value of their vehicle and the amount of money owed to the bank or leasing company. In many instances, this insurance will also pay the deductible on the primary insurance policy. These policies are often offered at the auto dealership as a comparatively low cost add on that can be put into the car loan which provides coverage for the duration of the loan.

Consumers should be aware that a few states, including New York, require lenders of leased cars to include GAP insurance within the cost of the lease itself. This means that the monthly price quoted by the dealer must include GAP insurance, whether it is delineated or not. Nevertheless, unscrupulous dealers sometimes prey on unsuspecting individuals by offering them GAP insurance at an additional price, on top of the monthly payment, without mentioning the State's requirements. In addition, some vendors and insurance companies offer what is called "Total Loss Coverage." This is similar to

ordinary GAP insurance but differs in that instead of paying off the negative equity on a vehicle that is a total loss, the policy provides a certain amount, usually up to $5000, toward the purchase or lease of a new vehicle. Thus, to some extent the distinction makes no difference, i.e., in either case the owner receives a certain sum of money. However, in choosing which type of policy to purchase, the owner should consider whether, in case of a total loss, it is more advantageous for him or her to have the policy pay off the negative equity or provide a down payment on a new vehicle.

For example, assuming a total loss of a vehicle valued at $15,000, but on which the owner owes $20,000, is the "gap" of $5000. If the owner has traditional GAP coverage, the "gap" will be wiped out and he or she may purchase or lease another vehicle or choose not to. If the owner has "Total Loss Coverage," he or she will have to personally cover the "gap" of $5000, and then receive $5000 toward the purchase or lease of a new vehicle, thereby either reducing monthly payments, in the case of financing or leasing, or the total purchase price in the case of outright purchasing. So the decision, on which type of policy to purchase will, in most instances, be informed by whether the owner can pay off the negative equity in case of a total loss and/or whether he or she will definitively purchase a replacement vehicle.

Car Towing Insurance- This coverage is also known as Roadside Assistance coverage. Traditionally, automobile insurance companies have agreed to only pay for the cost of a tow that is related to an accident that is covered under the automobile policy of insurance. This had left a gap in coverage for tows that are related to mechanical breakdowns, flat tires and gas outages. To fill that void, insurance companies started to offer the Car Towing coverage, which pays for non-accident related tows.

Basis of Premium Charges

Depending on the jurisdiction, the insurance premium can be either mandated by the government or determined by the insurance company in accordance to a framework of regulations set by the government. Often, the insurer will have more freedom to set the price on physical damage coverages than on mandatory liability coverages. When the premium is not mandated by the government, it is usually derived from the calculations of actuarially based on statistical data. The premium can vary depending on many factors that are believed to have an impact on the expected cost of future claims. Those factors can include the car characteristics, the coverage selected (deductible, limit, covered perils), the profile of the driver (age, gender, driving history) and the usage of the car (work, school, pleasure).

Gender

Men average more miles driven per year than women do, and have a proportionally higher accident involvement at all ages. Insurance companies cite women's lower accident involvement in keeping the youth surcharge lower for young women drivers than for their male counterparts, but adult rates are generally unisex. Reference to the lower rate for young women as "the women's discount" has caused confusion that was evident in news reports on a recently defeated EC proposal to make it illegal to consider gender in assessing insurance premiums. Ending the discount would have made no difference to most women's premiums.

Age

Teenage drivers who have no driving record will have higher car insurance premiums. However young drivers are often offered discounts if they undertake further driver training on recognized courses, such as the Pass Plus system in the UK. In the U.S. many insurers offer a good grade discount to students with a good academic record and resident student discounts to those who live away from home. Generally insurance premiums tend to become lower at the age of 25. Senior drivers are often eligible for retirement discounts reflecting lower average miles driven by this age group.

Miles Driven

Some car insurance plans do not differentiate in regard to how much the car is used. However, methods of differentiation would include:

Reasonable Estimation- Several car insurance plans rely on a reasonable estimation of the average annual distance expected to be driven which is provided by the insured. This discount benefits drivers who drive their cars infrequently but has no actuarial value since it is unverified.

Odometer Based Systems- Cents Per Mile Now advocates classified odometer-mile rates. After the company's risk factors have been applied and the customer has accepted the per-mile rate offered, customers buy prepaid miles of insurance protection as needed, like buying gallons of gasoline. Insurance automatically ends when the odometer limit (recorded on the car's insurance ID card) is reached unless more miles are bought. Customers keep track of miles on their own odometer to know when to buy more. The company does no after-the-fact billing of the customer, and the customer doesn't have to estimate a "future annual mileage" figure for the company to obtain a discount. In the event of a traffic stop, an officer could easily verify that the insurance is current by comparing the figure on the insurance card to that on the odometer.

Critics point out the possibility of cheating the system by odometer tampering. Although the newer electronic odometers are difficult to roll back, they can still be defeated by disconnecting the odometer wires and reconnecting them later. However, as the Cents Per Mile Now website points out: "As a practical matter, resetting odometers requires equipment plus expertise that makes stealing insurance risky and uneconomical. For example, in order to steal 20,000 miles of continuous protection while paying for only the 2,000 miles from 35,000 miles to 37,000 miles on the odometer, the resetting would have to be done at least nine times to keep the odometer reading within the narrow 2,000-mile covered range. There are also powerful legal deterrents to this way of stealing insurance protection. Odometers have always served as the measuring device for resale value, rental and leasing charges, warranty limits, mechanical breakdown insurance, and cents-per-mile tax deductions or reimbursements for business or government travel. Odometer tampering—detected during claim processing—voids the insurance and, under decades-old state and federal law, is punishable by heavy fines and jail."

Under the cents-per-mile system, rewards for driving less are delivered automatically without need for administratively cumbersome and costly GPS technology. Uniform per-mile exposure measurement for the first time provides the basis for statistically valid rate classes. Insurer premium income automatically keeps pace with increases or decreases in driving activity, cutting back on resulting insurer demand for rate increases

and preventing today's windfalls to insurers when decreased driving activity lowers costs but not premiums.

GPS Based Systems- In 1998, Progressive Insurance started a pilot program in Texas in which volunteers installed a global positioning system (GPS) based technology called Autograph in exchange for a discount. The device tracked their driving behavior and reported the results via cellular phone to the company. Policyholders were reportedly more upset about having to pay for the expensive device than they were over privacy concerns. In 1996, Progressive filed for and obtained a US patent (US patent 5,797,134) on their process. Progressive has also filed corresponding patent applications in Europe and Japan.

OBDII-based system- In 2004, Progressive launched another pilot program to allow policyholders to earn a discount on their premiums by consenting to use its TripSense device. TripSense connects to a car's OnBoard Diagnostic (OBD-II) port, which exists in all cars built after 1996. The discount is forfeited if the device is disconnected for a significant amount of time.

Chapter 2 Development of Auto Liability Rating

A development that dramatically affected the insurance environment of the early twentieth century was the introduction of the “reasonably priced, reliable, and efficient” Model T by Henry Ford in 1908, only two years after the San Francisco fire and a few years prior to the Merritt committee and NCIC reports.

Auto Insurance and the American Experience

The automobile not only revolutionized the transportation system in this country, it also caused a major shift in the property-liability insurance industry as well, as automobile insurance soon replaced fire insurance as the largest line of business. The primary risk of automobile insurance was liability, not damage to the property itself. Also, automobiles were not subject to the fire peril or other catastrophic exposures to the same extent that buildings and their contents were.

Automobile Liability insurance can be traced back to about 1898 when two hundred cars were manufactured in the United States. It was first written in Great Britain about the same time as in the United States, or possibly a little earlier. English underwriters began with a public liability form called “Third Party Liability,” applicable only to autos of the pleasure type.

AUTOMOBILE LIABILITY RATING PRIOR TO 1932

The first policies in England covered only public liability with a total limit equivalent to $2,500. Since the premium was $50 regardless of the horsepower or type of car, the rate seemed to be purely arbitrary. In 1899, the public liability policy was broadened to provide a limit of $1,250 for a single accident with $5,000 as the limit under the policy for the year. The rate was $47.50 for pleasure cars of all horsepower. By 1900, the owners insured had slightly broader options on the coverage they wished. For a $20 premium, the insured could have limits of $500 for a single accident with $2,500 for the year. For $30, he could purchase limits of $1,250/2,500. In 1901, the first policy to include property damage liability along with public liability was issued. In the same year, the English underwriters were quoting premiums varying with the horsepower of the car. Since the rates quoted, however, were generally for cars under 12 horsepower, and since practically no cars over 12 horsepower were in operation at the time, a very meager classification system existed.

By 1902, the policies being issued in Great Britain included several coverages. For a stated premium, for example $75, the insured was covered for public liability and for property damage with limits of $1,250/$5,000, for collision with total policy limits of $500, and for fire and theft limits of $1,250; the coverage also included a $500 benefit upon death (if the car was not being driven by the owner) or for the loss of two limbs, a $250 benefit for the loss of one limb, and $1 per week for 26 weeks while the driver was disabled. In addition, there were owner's benefits of $2,500 for death or loss of two limbs, $1,250 for the loss of one limb, and $15.00 per week while the owner was disabled. The policy thus became a conglomeration of coverages based on a rate set entirely upon an arbitrary judgment basis. The underwriters, no doubt, hoped that premiums would exceed losses, and if losses were excessive, they planned to increase

premiums for the following year. The coverage was confined to private pleasure cars, although motorcycles were written for the first time at a discount of 20% per cent from the private car rate.

In 1903, the yearly policy limit for public liability and property damage was removed, and a 10 per cent reduction was allowed if the company's liability was limited to accidents occurring only while the car was being driven by the insured. Standard rates were now being quoted for private passenger cars of from 6 to 16 horsepower with a 20 per cent reduction for cars under this horsepower and special rates for cars that were over 16 horsepower. Policies with a single rate still maintained combined overages. Motorcycles were now being written at a 50 per cent reduction from the stated rates, a reduction which also applied if the insured paid the first $50.00 of every claim. In 1904, the horsepower ratings for a standard premium were increased from 16 to 20; and in 1905, the first classes of horsepower ratings appeared, such as from 6 to 9, 10 to 12,13 to 18,19 to 24, and 25 to 40. By 1906, the horsepower ratings were revised to 10 to 15, 16 to 25, and 26 to 50. This system provided the basis for English rate making for the next half dozen years, or until the United States became the center of the automobile economy.

Coverage Beginnings in the U.S.

Since the automobile was of slight importance in the United States prior to 1900, automobile liability insurance rating can be traced back only to that year. Actually, in the census of 1899, the manufacture of automobiles was reported only as a part of the carriage and wagon industry.

In 1898 two hundred automobiles were manufactured in the U.S. and this new means of conveyance entered the realm of underwriting. The first automobile insurance policy was issued to Dr. Truman Martin of Buffalo, NY, protecting him against liability for damages to the persons or property of others by reason of the operation of his auto. During the same year several other automobile owners indemnified themselves with similar policies. These policies evolved from “team forms,” those designed for the protection for the owners of teams of horses drawing or pulling wagons, carriages, carts, etc. Protection was for damages resulting from runaways, kicking or biting horses and the like. The team forms type of coverage had already existed for about 10 years in the United States. Insurers did not generally write casualty insurance at this time, but more and more car owners took out liability coverage. Eventually the owners began to seek coverage on the machines themselves. At the beginning of the 20th Century, United States Lloyd’s came out with a policy protecting automobiles against fire or theft at all times and places.

A good portion of insurers, however, were in favor of a boycott of insuring autos. The trade journal *Spectator* came out for an insurance boycott of the new contraptions-

> “The motormen-chauffeurs is the general term- driving automobiles are usually reckless, rushing madly past frightened teams [of horses] without attempting to slow down, or frequently coming up from behind and passing without giving any warning whatever. Nervous horses are sure to be alarmed at such apparitions… While they cannot prevent their policyholders form being run over by reckless chauffeurs…[underwriters] might serve the cause of public safety by refusing to insure anyone who has acquired the automobile habit.”

Despite such misgivings, in the year 1905, there were 25,000 cars made in the United States with a total of 78,000 in operation on the roads (such that they were). Policies were written to cover fire and theft, and in 1907 collision insurance was added. Theft rates of automobiles were low before the Great War. In those days an auto was a rich man’s toy. It was almost immune from theft being too conspicuous and too difficult for a thief to dispose of easily. Things had changed by the end of the World War in 1918. There were then six million motor cars on American roads

That the early automobile policies offered to the public were not rated through cooperative measures of the companies is not surprising, therefore. In fact, ruinous rate-cutting was common at the outset and became a disturbing feature of the business. According to the earliest records available, the first property damage policy in the United States was written about 1898. The original United States public liability coverage, taken care of under a teams form, had as its initial limits $ 5,000 for public liability for each accident to a single person and $10,000 for an accident in which more than one person might be injured; those limits are valid at the present time. The first liability insurance written in the United States seems to have been in 1898 on electric vehicles. Insurance on gasoline and steam cars followed in 1899. When steam cars were first protected, the underwriters were concerned about the additional hazard of explosion, a distinct possibility because of high boiler pressure. To protect himself against public liability and property damage caused by the explosion of the boiler, whether the car was occupied or not, the owner had to pay an additional premium. Thus, the basic policy excluded boiler explosion, and a complete coverage policy required the addition of the boiler endorsement.

In the beginning and for a number of years thereafter, the liability rates were far from being uniform or stable. The only uniformity lay in the common acceptance of horsepower as a basis for rates. The original basis was a flat premium for cars not exceeding a certain horsepower with an additional premium for each horsepower above the stated minimum. One of the early companies charged $50.00 for a 12 horsepower car, plus $5.00 for every horsepower increase over 12. Since few cars at that time were over 12 horsepower, the standard rate for 12 horsepower was normally applied. Companies had no conference or agreement of any kind on either the method of rating or the rates themselves or even the compilation of loss statistics. The rate promulgated by each company seemed to be based entirely on judgment and too often on the desire to underbid its competitors, with an eye to getting a larger share of the business. Initially, because of this extreme competition, the experience was unprofitable and several carriers were driven out of the market completely.

Drastic Changes

In the early 1900's the automobile carriers began to realize that with the huge increase in car production and with the drastic changes being made in the chassis of the automobiles, some cooperation was necessary. The first type of arrangement was a sort of "gentleman's agreement" among a few of the companies to uphold the rates they set and to compare their statistics in order to arrive at more accurate rates. Consequently, horsepower was adopted as the basis for rating, and a definite premium rate was set for each horsepower group; most of the larger companies adhered to this rate. In time, the automobile liability business was included in the Liability Conference, which was an association of leading casualty companies to compile statistics and hold rates at a stipulated level for a number of lines of insurance. After the advent of

workman's compensation insurance, the Conference became part of an organization known as the National Workmen's Compensation Service Bureau, which eventually developed into the National Bureau of Casualty Underwriters. In the beginning nearly all of the large stock casualty companies belonged to the Bureau. The National Workmen's Compensation Service Bureau was an agency for the promulgation of all types of liability and compensation rates including automobile coverage.

The Bureau's statisticians collected and prepared rate making data and submitted their conclusions to the "Automobile Committee," which made the final decisions. At that time about 85 per cent of the liability business was done by companies which adhered to the Bureau's rates. The current major rating bureau, the National Bureau of Casualty Underwriters is responsible through its Stock Company members for about 40 per cent of the annual liability premium volume. This figure includes business written by companies who are members or subscribers to the National Bureau. Apparently, as the automobile insurance market matured, fewer of the companies were able to agree on the proper rate making procedures. Even though early rate making in the field was admittedly crude, it was evidently acceptable to a surprisingly large number of companies.

In 1914, when the first countrywide automobile casualty manual was issued, a 25 horsepower automobile located anywhere in the state of Pennsylvania carried a public liability rate of $31.50 and a property damage rate of $10.75, whereas a 60 horsepower automobile carried rates of $66.50 and $20.75 respectively, regardless of whether the car was located in Philadelphia, Harrisburg, or Erie. The rates noted protected only the owner named under the policy. To insure the owner's wife or other drivers, additional premiums of 10, 12 1/2, or 15 per cent for one, two or three additional assureds had to be paid.

Territorial Differentiations

In 1917, some territorial differentiations began to appear. A year later, the additional charges for covering persons other than the owner were withdrawn. The territorial differentials may be clearly illustrated: In 1917 a 60 horsepower automobile in Philadelphia carried a rate of $66.50 for public liability and $19.90 for property damage in Pittsburgh, and $59.75 for public liability and $14.95 for property damage elsewhere in the state. For rate making purposes, the country was divided initially into 11 sections. The sections used were: (1) Greater New York; (2)Chicago and St. Louis territory; (3) Boston territory; (4) Philadelphia territory; (5) Providence; (6) Baltimore, District of Columbia, and Pittsburgh; (7) Detroit, Indianapolis, and Milwaukee; (8) St. Paul and Minneapolis; (9) the states of Alabama, Kentucky, and Tennessee; (10) Arkansas, portions of various other states, and certain specified cities; and (11) Arizona and other states. This division seems to be an attempt by the rate makers, presumably through the use of judgment only (since statistics of any value were rarely available), to divide the country into districts whose loss ratios were reasonably similar.

Grouped in Categories- The earliest system of classification for automobiles, once the territory had been established, included four classes. Vehicles were grouped as private pleasure cars, public vehicles, commercial motors, and manufacturers' and dealers' cars. The term private pleasure car was not an exact description of the category, since the rate makers found it advisable to include in the group cars which were used for professional purposes, such as physicians' cars. The public motor car division included

livery vehicles, taxicabs, sight-seeing cars, and cars of the "private pleasure" type used or rented for livery purposes, regardless of the frequency of use. The commercial vehicles were those used for transportation of goods or merchandise; a category which the rate makers had a difficult time properly defining. The manufacturers' and dealers' cars were those used primarily for demonstrating or testing purposes by factories, sales agencies, and garages. A distinction was made between gasoline and electric driven cars. For "private pleasure cars," our main concern, the following rating system was used.

The factors believed to be of some consequence in establishing the risk were, at the outset, motive power, the territory in which the car was used, and horsepower. The electric vehicles always seemed to enjoy lower rates than the gasoline cars. In fact, no rate distinction seems to have been made for electric cars on the basis of horsepower; the premiums charged were on a straight per-car basis. This position was justified by the belief that electric cars were capable of only an ordinary rate of speed, that they were more conservatively driven, and that they were used extensively for social purposes. These factors supposedly reduced the probability of frequent and severe accidents as compared with the hazard of gasoline driven cars. The distinction between gasoline and electric cars and the per-car method of rating seemed to have general acceptance during the period from 1910 to 1920. An example of the rates is shown in Table I.

Table I
Automobile Liability Rates- 1915 ST. LOUIS AND CHICAGO TERRRITORY

	Public Liability		Property Damage	
Horsepower	Gasoline	Electric	Gasoline	Electric
16	$22.50	---------	$ 5.65	---------
40	66.50	$17.50	$16.65	$4.40
60	86.50	--------	21.65	--------

Source: Robert C. Mead, The Making of Public Liability and Property Damage Rates, 1933

The scarcity of statistical data during that period raises the question of whether a correct premium ratio existed between the two classes of cars. For territorial distinctions, the following table indicates some of the rates in use. The rate makers recognized the differences in traffic conditions in various cities and in rural districts which affected the probability of injury to persons and property. The greater damages recoverable in some jurisdictions were also taken into account. The table indicates the rates for a 40 horsepower gasoline car.

Table II
Automobile Liability Rates by Territory – 1915

Territory	Liability	Property Damage
Greater New York	$83.50	$20.90
Chicago and St. Louis	66.50	16.65
Providence	54.50	17.25
Boston	54.50	13.65
Philadelphia	46.50	16.65
Baltimore and Pittsburgh	46.50	15.15
Arizona	44.75	11.20

Source: Robert C. Mead, The Making of Public Liability and Property Damage Rates, 1933

The last factor considered seemed to be the horsepower of the automobile as computed by a formula of the Society of Automotive Engineers; frequently this formula differed

from the advertised horsepower of the car. The following table indicates in the Chicago territory a typical increase in premium as horsepower rose.

Liability Rating- Beginning the Automobile Age

At the beginning of the Automobile Age, heavy criticism was leveled at the basis for rate making. Professor Robert Riegel, then of the University of Pennsylvania, suggested in an article in the “Journal of Political Economy” as far back as 1916, that each of the rating criteria was defective in one way or another. His criticism of motive power as a basis for rate making involved its dependence upon judgment, without statistics for support. Although he agreed that use of the gasoline-electric classification was probably correct, he disputed the differential between the two classes, because it was an estimate only. Similarly, he acknowledged the difference in traffic conditions in various territories, but he objected to the use of territory as a bases for rate making, because no statistics were available to indicate just how much more hazardous the conditions in New York were over those in Chicago. Nevertheless, information available indicated that the liability rates were reviewed periodically and thus were responsive to changing loss figures. The rate for public liability, the term at that time for what is now referred to as ‘liability’ insurance, for a 40 horsepower car was $86.00 in December, 1913, $73.50 in the early part of 1915, and $66.50 later in 1915. The fairly substantial reduction over a short period was probably due to the fact that the initial rates contained a substantial ‘safety’ factor, which was not needed after the experience was available.

Table III
Automobile Liability Rates by Territory – 1915
Chicago Territory

Horsepower	Liability	Property Damage
16	$22.50	$ 5.65
20	34.50	8.65
25	46.50	11.65
30	56.50	14.15
35	61.50	15.40
40	66.50	16.65
50	76.50	19.15
60 and over	86.50	21.65

Source: Robert C. Mead, The Making of Public Liability and Property Damage Rates, 1933

Certainly, some inequities resulted from the territorial classifications, but even in today’s territorial divisions, because of the need to establish limits for each classification group, inequalities are bound to occur. The problem has existed from the earliest days of automobile liability rating to the present. The use of horsepower as a rating device was also sharply criticized, since speed limits have some effect on a car's potential destructive force. Mr. Riegel maintained in his article that "almost any private pleasure car can attain a speed of 30 miles per hour and greater speeds are almost universally prohibited by law, which, it is argued, places practically all cars upon an equal basis." Nevertheless, statistics available for the period indicate some correlation between losses and horsepower.

Horsepower rating was also criticized on the assumption that high powered cars were usually expensive and often more carefully driven by professional chauffeurs. Thus, the need to make allowance for competent operation was recognized early, but the problem has defied solution to the present time; human qualities, the best possible basis for rating, are impossible to evaluate accurately. The entire history of automobile liability

insurance rate making has been the search for bases for rating which would parallel the unattainable goal of measuring individual operators' driving abilities and habits. A further criticism of the horsepower system, which Mr. Riegel pointed out as far back as 1920, was the omission of the distance traveled factor in computing the rate. He admitted the impracticality of trying to measure the distance traveled because of falsification of speedometer records; however, twenty years later a system was adopted which used a mileage qualification as an important part of the classifications. Here again, the factors affecting the premium were recognized, but a standard for measurement could not be achieved. Because of the complexities of measurement, mileage classification was abandoned after a few years of operation. Conversely, the current rating classification system does consider mileage to a small extent. Lastly, the horsepower standard was criticized, because horsepower was derived from a formula of the Society of Automotive Engineers, which measured only bore and the number of cylinders rather than the length of the stroke and thus was not accurate.

Basis of Rate Making

Beyond the necessity for sufficient statistics, a problem which was solved by building up years of data, the major problem of the early rate makers was to develop a theoretical basis for rate making. Before this theoretical basis could be constructed, experience had to be collected. In one of the first systems that went into effect for the policy year 1917, all experience data were based upon the year when the policy was issued, regardless of the time when the premium was received or the loss was paid. This was the beginning of the policy year system, which is still used to report loss data. Prior to this time reporting statistics was difficult because of variances between companies in handling insurance for fractional periods less than a year.

The system adopted at this time provided for the use of the "car-year" by which insurance for less than twelve months was reported as a corresponding fraction of a car year; for example, a car insured by the company for only four months was reported as one-third of a car year. The plan required members to furnish not only the exposure, premiums, and losses, but also a description of the risk to enable the Bureau (National Workmen's Compensation Service Bureau) to segregate the data. This procedure involved the breakdown of the data by type of coverage (public liability or property damage), by type of car (private pleasure, private pleasure occasionally commercial, commercial, livery, public other than livery, manufacturers' and dealers' on named-chauffeur or specified car basis, or manufacturers' and dealers' on payroll basis), by type of motive power (gasoline, steam, or electric), and by horsepower. Countrywide experience, as well as state and territory figures, was reported. Initially, to build a sufficient amount of experience by state or territory, the breakdown for these areas did not include the horsepower classification. Companies believed that national figures derived from the horsepower results could properly be applied to state and territory rates without compiling individual horsepower experience in those areas. This system, although not the most accurate, was necessary because of what would now be called the lack of credibility of state or territory data on horsepower.

Accuracy an Issue

Admittedly, the first system of rate making was not noted for its accuracy. Several valid criticisms of the plan were suggested by Professor Riegel. He felt that modifications of

the system were necessary to reduce discriminations which were unavoidable under the plan in use. He suggested the consideration of some hazards, not in the rating system, and also a more equitable allocation of expenses. The question of territory was difficult, because the boundary lines of the territories changed much more rapidly than the hazards changed. Mr. Riegel suggested an increase in the number of rating zones, with each zone large enough only to secure sufficient exposure and experience. He believed at that time (1920) that every "large" city in the United States (over 55,000 inhabitants) should be the center of a series of rate zones; the city itself would form the highest of these zones. A basis rate for the losses incurred in each of these cities could be secured by comparing the ratio of losses to exposure of all private pleasure cars in the particular city with the ratio of losses to exposure over the entire United States. The particular city's rates would then bear the same proportion to the average loss ratio of the United States. Thus, the Pittsburgh rate might be set at 140 per cent of the national average. Since the 1910 census listed only 100 cities of the specified population, and since a reasonable parallelism of experience could be expected among the cities, this classification and the subsequent reduction of rating zones was feasible; more grouping would be necessary where insufficient exposure was found. Smaller cities were to be grouped in a class and their rate determined in a manner similar to that used for setting the rates for the larger cities. Although such a system was not entirely equitable, as Mr. Riegel recognized, it would certainly be an improvement over the first system under which cities of 100,000 and 5,000 frequently had the same rate if they fell in the same territory.

Mr. Riegel next turned his attention to non-metropolitan areas, including suburban and rural districts. Here he proposed that each of the cities be considered as the center of a series of concentric circles. The geographic center of the city would be the common center and the circumferences of the circles would be considered the boundary lines of rate zones. Thus, the first circle, drawn with a radius of 25 miles and with the city as the center, would take a stated rate varying with horsepower. Outside this circle would be another circle with the same center but with a larger diameter. All cars between the circumference of this circle and that of the first one would take a rate, by some stated percentage, lower than the rate for the city zone. This reduction was to be allowed on the assumption that the farther a car is kept from the city, the less it will be used within city limits and the less accident exposure it will be subject to. The loss experience of a number of cities was to be used to determine a statistical basis for setting the percentage reduction for each circle.

The system proposed was defended on the grounds that its basic assumptions were logical and that it would lessen the discrimination resulting from the territorial divisions then in use. With the system being used, a distance of a half-mile could cause a considerable difference in rates, which would be removed by using the concentric circles whereby the percentage reduction from one circle to the next would be relatively small. Despite this assumption, the great variation between hazards inside this circle with a 25 mile radius and those directly outside would have required, in some instances, material rate differences. On the other hand, many of the ideas promulgated by Mr. Riegel were adopted, at least in part, in later revisions. As for other hazards, Mr. Riegel thought that some attention should be given to mileage covered and to competent driving. Although mileage driven was later used as a basis for rating, he came to the general conclusion that such factors, though desirable, were too difficult to measure and hence not worth the trouble involved.

Finally, proper allocation of expenses was recognized as a problem, second in importance only to ascertaining the correct pure premium. Another difficulty was the necessity for developing an efficient type of cost accounting for multiple line companies to insure fair allocation of expenses and to make the final rate as nearly equitable and non-discriminatory as possible. Professor Riegel's comments are presented as an indication of academic thinking on the rating problem. An evaluation of the merits of his suggestions is beyond the scope of this study, which is entirely historical.

Automobile Liability Rating 1915-1920

An example of rate calculations for the 1916 -1917 period is given by A. Ryder in a reprint of a speech he delivered in 1919 to the Insurance Society of New York. He reported that the National Workmen's Compensation Service Bureau asked its member companies each fall for the statistics of the past two or three completed policy-writing years, covering the entire United States on the various classes of automobile risks. A sample rate computation chart follows (Table IV). Charts were prepared separately for each state and city territory. The example given covers only private pleasure cars (gas and steam); all list prices, driver classifications, and use classifications have been combined. The figures for New York in 1916 -25,000 cars insured with losses of $1,500,000 -produce a pure premium cost of $60.00 per car. The 1917 pure premium cost was $65.00 per car with $62.73 as the combined pure premium for both policy-writing years. The same procedure was followed in each of approximately sixty territories. To determine the rate differential between private pleasure cars in New York City and those in the country as a whole, the New York pure premium of$62.73 was divided by the pure premium for the entire country.

Table IV
Automobile Liability Rate Computation Chart- 1918

Territories	New York City	Boston	Arizona	Entire Country
# of cars 1916	25,000	10,000	200	200,000
Losses 1916	$1,500,000	$300,000	$1,000	$4,000,000
# of cars 1917	30,000	11,000	250	250,000
Losses 1917	1,950,000	352,000	2,500	5,550,000
Total Cars 1916-17	55,000	21,000	450	5,550,000
Total Losses 1916-17	$3,450,000	$652,000	$3,500	$9,500,000
Pure Premium 1916	$60.00	$30.00	$ 5.00	$20.00
Pure Premium 1917	65.00	32.00	10.00	22.00
Pure Premium 1916-17	62.73	31.05	7.78	21.11
Territory Differential	2.97	1.47	.37	1.00

Source: A. Ryder, Principles of Automobile Rate Making, 1919.

A territorial differential of $2.97 was the result. Since the table produced above has only a territorial basis, the private pleasure gasoline experience had to be broken down according to the list price groups, with one table for the big cities, one for the medium sized cities, and one for the rest of the country. Allowances were made in areas where credibility seemed strained. For example in a state where only four or five hundred cars were insured so that a large loss would seriously affect the final figures, the grouping process was used. Normally, only adjacent territories were combined in order to produce a reliable average pure premium. Because of the normal underestimation of outstanding claims at the end of the year, a factor was computed for the more accurate

estimation of outstanding losses. In cases where rates had to be made for classes without reliable experience data, some personal judgment was used.

Rating Differentials

Prior to 1919-1920, automobiles had been rated for public liability and property damage on a horsepower basis, the rate increasing as the insurable horsepower increased. The S. A. E. horsepower formula was used to determine the insurable horsepower of each car manufactured; each make of car was listed, showing specifications, list price, and insurable horsepower. But manufacturers had been improving the engine design to such an extent that the S. A. E. horsepower formula was no longer even approximately correct. The formula produced the same horsepower for both the Mercer and the Ford, whereas the horsepower of the Mercer was actually twice that of the Ford. With horsepower becoming a selling point, many of the manufacturers began to advertise horsepowers which were higher on paper than in the automobile. The owners of those automobiles gained, along with prestige, unjustifiably higher insurance rates. One observant manufacturer began to undervalue the horsepower of his automobiles so the public could secure cheaper insurance rates. As a result of these practices, the companies soon found that the advertised horsepower was unreliable. Subsequently, they adopted what became known as the A.L.A.M. formula[1], which was based on the bore and stroke of the piston. With rapid changes and confusion in horsepower ratings, the shortcomings of any horsepower formula became apparent.

After much discussion, the companies established the list price system of figuring premiums. Other changes were made at the same time. Experience had shown that cars operated solely for pleasure purposes constituted less of a hazard than those operated for business purposes. Also, a car operated by the owner seemed less of a hazard than the same car operated by a chauffeur. So differentials of eight per cent from the so-called manual or standard rate were established if the car was limited to private pleasure purposes; a discount of 20 per cent was allowed if the driving of the car was limited to one named individual owner (not a chauffeur), and if the car was used for private pleasure purposes only.

Price Classification

The list price seemed, to the actuaries, a reasonable guide to the hazard involved; and the cars were classified into four general groups: $0 to $1,199, $1,200 to $2,499, $2,500 to $3,499, and $3,500 and over. Because list prices were continually changing and also because various types of bodies might be attached to a particular chassis model, this method was bogged down in less than one year. For example, a car listed for just under $2,500 might cost just over $2,500 if some small accessory were added, which would have little or no effect on the hazard involved but would increase the premium required. Subsequently, the symbol system of W, X, Y, Z was adopted, with the Z cars being the most expensive and having rates approximately 50 per cent above

[1] By this method the horsepower of the engine was determined by multiplying the square of the bore by the number of cylinders and dividing the result by 2.5. This was soon replaced by a different formula which used the length of the stroke of the motor in determining the horsepower. The new formula was referred to as follows:
Add the bore and the stroke;
Multiply this sum by the bore;
Multiply result by number of cylinders;
Multiply this result by .224.

those for the cheaper cars of Class W. In the 1920 revision, eight different territories were established, with the New York rates seven and eight times the rates in some other parts of the country. In 1919 and in the 1920 revision, the eight per cent reduction established for the car restricted to "private purposes" was continued. The 20 per cent reduction for driving restricted to the owner only and to "private purposes" was also continued in the 1920 revision.

Commercial Cars

For commercial cars the procedure was somewhat different. In the 1920 revision, commercial cars were rated not only in accordance with territory but also in accordance with the business of the insured. Earlier, seven general classes of risks placed ambulances and fire engines in the highest class and baggage transfer trucks in the next highest. Truckmen were rated in a lower class, coal dealers in a still lower class, followed by retail stores, and finally wholesale risks were in the lowest group of all. Experience, when available, indicated that cars used for wholesale delivery were costing just as much as cars used in retail delivery. Therefore, the 1920 manual changes reduced the number of classifications to three. Newspaper delivery cars, baggage transfer trucks, and all cars used in emergency work were rated highest. Coal dealers, truckmen, and certain other risks were written at a medium rate, and all of the retail and wholesale risks were put into the lowest rate group. For the first time in 1920, commercial cars were also rated in accordance with their load capacity, with the highest rate for heavy trucks over 3 1/2 tons and the lowest rate for light trucks with under one ton capacity. Electric powered vehicles were granted a 10 per cent reduction from the rates for gasoline-driven commercial cars. Public automobiles were divided into two general classes: the livery group and a combination of taxicabs, jitneys, and omnibusses, with the highest rate for the latter class. Jitneys and busses were rated according to seating capacity.

In setting territories for this revision, New York was placed in Schedule 1, New York suburban areas in Schedule 2, Boston in Schedule 3, and smaller cities were placed in succeeding classes. Eastern rural districts were in Schedule 7 and western and southern in Schedule 8. On the theory that the hazard was the same for a car kept in the suburbs as for a car kept in the city itself, each city territory was defined to include surrounding territory of about five or ten miles. Miscellaneous classes also were receiving consideration. For example, garage risks were covered on the payroll basis and the 1920 revision reduced the rates substantially, but the basis for computing payroll was changed so that a payroll figure higher than before was established. The 1919 manual placed a limit of $1,500 on the amount of salary to be used in the premium computations for anyone employee. The 1920 manual eliminated this maximum for most of the employees and used a flat $2,000 charge for owners, officers, automobile salesmen, and general managers.

Automobile Liability Rating 1920 -1932

For the rate revisions of 1923 and 1924, a new system of rate making was developed. For the first time sufficient statistics became available for a more systematic approach to rate making. Prior to this time, the establishment of rates was largely a matter of judgment, supplemented by a meager supply of data. As new classifications were introduced and rates promulgated, little, if any, statistical data were available. The rate makers set up statistical classifications to correspond to the underwriting classifications

being used in the hope that future results would either justify or show the error in the innovations adopted. With sufficient data finally available, the rates began to reflect the results of actual experience, and thus a relatively scientific basis for rate making which had not existed previously was established.

For rate making purposes, the United States was divided into a number of territorial schedules; 50 existed in 1925. Schedule 1, which included New York, had the highest rates, and schedule 50, which included the rural districts of the South and West, had the lowest rates. All automobiles were divided into four types, as private passenger, commercial, public, and automobile dealers' and garages'. These were, of course, broken down into various classifications. For example, the private passenger cars were listed as W, X, Y, or Z as previously indicated.

The relatively scientific approach being used to develop the rates made the proper compilation of statistics necessary. For statistical purposes, the 50 territorial schedules noted above were divided into 540 territorial divisions, which were condensed into 251 divisions for coding and tabulating. The data on each kind of coverage in each territorial division were further divided according to the types of risks and then according to the rating classifications. In addition to the four private passenger car classifications, 59 business and load capacity classifications for commercial cars were established. The statistical unit of exposure was the car year, except for the garage policy, for which the unit was $100.00 of payroll. Cars written for less than a year were counted as a fraction of a car year.

Data Tabulation Particulars

The data were tabulated by individual territories with all rating classifications combined, as well as by rating classifications with all territories combined. The tabulation was also made by rating classification for large cities, medium sized cities, small cities, and rural districts. The first tabulation was used to establish an average rate for a particular community, and this rate was broken down into rates for various classifications by the application of a set of differentials obtained from an analysis of the second tabulation. Statistics for three or four policy years, including the incomplete data of the most recent policy year, were used to set the rates. But the lag of one year between the latest experience and the year for which the rates were effective weakened the reliability of these rates.

Data for the incomplete policy year were converted to an earned basis by the application of earned factors to the exposure and premiums, which were reported on a written basis. The ratio of pure premiums reported at the end of 12 months to those reported at the end of 24 months provided the factor. Along with the earned factor reflected in such data was an increasing or decreasing cost factor, if present. For example, in Table V below, a decreasing cost factor is shown by the fact that the second 12 months' figures were slightly better than those of the first 12 months. Had the cost factor not been present, the normal earned factor would have been about 55 per cent from year to year. The inclusion of a cost factor tended to vary the earned factor from year to year.

The rate structure at this period was based on the belief that as soon as an individual community developed an experience of dependable volume, the rates should depend on that community's individual data; if possible, violent fluctuations in the rating

schedules, from year to year, should be avoided to give stability and permanence to the rates. To determine a dependable exposure, the mathematical probability where cars were insured against a hazard involving an accident frequency was calculated.

Credibility Factor- The experience rating method includes a credibility factor, which reflects the degree of confidence placed in the insured's past experience as a predictor of future experience. The greater the past exposures, the more credible the experience and the greater the impact past experience will have in raising or lowering the experience modification.

Approximately 5,000 cars made the experience data significant. Otherwise, individual data were not used and grouping made necessary the "rest of state" classifications for rural areas. The attempt to preserve stability of rates made necessary some departures from the experience shown in the various territories. If the experience indications were followed exactly from year to year, the radical annual fluctuations of rates, hardly conducive to stability, would present difficulties both to agents and to those insured.

Table V
Conversion of Incomplete Policy Year Data
To An Earned Basis - 1923

Policy Year	As of 12-31	Cars	Losses Incurred	Pure Premium	Ratio of (1) to (2) for Each Policy Year
1920	1920	530,403	$ 5,889,647	(1) $11.10	53.7
	1921	505,015	10,435,054	(2) 20.66	
1921	1921	675,554	7,035,048	(1) 10.41	56.9
	1922	647,597	11,852,942	(2) 18.30	
1922	1922	837,591	7,531,237	(1) 8.99	58.6
	1923	807,818	12,385,385	(2) 15.33	

Source: Proceedings of the Casualty Actuarial Society, Volume XI, 1924-1925.

An attempt was made, therefore, to eliminate the effect of any chance fluctuations of the data and to ascertain the significant trends. A compromise between the rate indicated by the latest experience and the rate then in force was the most reliable procedure. For example, credibility factors were developed for both the indicated rate and the current rate. If the credence were 50 per cent for the indicated rate, an indicated increase of $50.00 actually was considered only as $25.00. Thus, if the current rate was $100.00 and the rate indicated by the latest experience were $150.00, the new rate would be $125.00, the result of 50 per cent credence to the indicated figure. If future results indicated that the rate was inadequate, further increases could be made. Similar procedures were used when the indicated results showed that a rate decrease was necessary. From the statistical tabulation made by territories with all classifications combined, the average rates for individual territories were established. Before the process was completed, nine distinct steps were taken:

1.) Calculation of weighted average pure premiums -In an attempt to use as much statistical data as possible, the losses and exposure for the four latest policy years were combined for each individual territory, and weighted average pure premiums were then determined. The experience of the latest policy year was converted to an earned basis comparable to the results of the preceding three years. This procedure was followed in all but those cases in which a particular years' statistics had been affected by some situation unlikely to occur again. In that case, the results for that year were not included.

The omission of the figures was decided by the rate makers in conference before promulgating the rates.

2.) Selection of pure premiums -Once the average pure premium had been determined; the territory experience was reviewed to ascertain whether or not justified results of the hazard involved or if further modification was necessary to reflect any condition peculiar to that territory.

3.) Adjustment of the selected pure premium -When the pure premium was finally selected, it was adjusted to reflect the loss level of the latest available policy year. This adjustment was accomplished through the use of a factor developed as follows:

a. The written cars reported for the latest available policy year were reduced to earned cars by the application of a reduction factor.

b. The earned cars were multiplied by the selected pure premiums in the various territories, and the results were totaled to determine the countrywide losses which might be expected on the basis of the pure premium selected.

c. The losses indicated were compared with those actually incurred in the latest policy year.

d. If the indicated losses were higher than the actually incurred losses, horizontal reductions were made in all of the pure premiums; if they were lower, upward horizontal adjustments were made.

4.) Derivation of the indicated premiums -After the adjusted pure premiums were determined, the gross premium was computed by the use of the formula:

$$1 - \frac{\text{Pure Premium}}{\text{Expense Loading}}$$

Based on the New York State Casualty Experience Exhibit for 1923, the permitted expense loading for public liability and property damage is shown in Table VI.

Table VI
Automobile Liability Expense Loadings – 1923

	Public Liability	Property Damage
Unallocated Claim Expense	.07	.11
Administration Expense	.08	.08
Inspection and Bureau Expense	.005	.005
Taxes	.025	.025
Acquisition	.175	.20
Field Supervision	.075	.05
Total	.43	.47

Source: New York State Casualty Experience Exhibit, National Bureau of Casualty and Security Underwriters, 1923.

5.) Calculation of the actual departure -After the gross rate had been determined, the possibility of adjustments was still present. By calculating the actual departure, one could determine whether the l indicated rate was greater or less than the rate in force. The calculation was made by comparing the indicated rate established on the latest experience with the average rate in force. The average rate in force was determined by multiplying the distribution of cars both by classes and by the various territorial class rates.

6.) Establishment of credibility factors -To establish full credibility for a city, one had to determine the number of cars which would furnish reliable indications of the hazard

within the city. The figure chosen was 50,000 for public liability. If a territory had fewer than 50,000 cars, its credibility factor was developed from the following formula:

$$\frac{\sqrt{50{,}000}}{\sqrt{n}} = \frac{1.00}{credibility\_factor}$$

where *n* is the number of cars within the city or territory in question.

7.) Calculation of the allowable departure -The allowable departure, which was the amount added or subtracted from the existing average rate, was obtained by multiplying the actual departure by the credibility factor. If the existing average rate was $50.00 and the indicated rate was $60.00 and the credibility was 20 per cent, then the actual departure was plus $20.00 and the allowable departure was plus $2.00.
8.) Determination of the adjusted indicated rate -This rate was determined by adding to or subtracting from the rate in force, the allowable departure.
9.) Final adjustment of rates -This final adjustment was necessary because the use of credibility factors tended to raise the level of rates in cases where the experience might have indicated the need for a decrease and tended to keep the rate down when an increase might have been indicated, By comparing the expected countrywide premium income on the basis of the indicated rates with the actually needed countrywide income on the basis of the total losses incurred for the latest policy year, one could determine a final adjustment factor. The rate indicated for each territory was multiplied by the earned cars for the territory and the results were totaled country- wide; the expected premium income was computed on the basis of the reported exposures. To obtain the premium income needed, the total losses incurred for the latest policy year were divided by one minus the expense loading. After this result was compared with the expected income, any necessary horizontal changes were made in the indicated rates.

W, X, Y and Z

Once the final adjustment of the rates had been made, only their classification, as explained previously, was necessary. For credibility purposes, the companies presented only countrywide classification exhibits of their most recent experience. This method was feasible, since the class hazard did not vary appreciably from one territory to another. The W, *X,* Y and Z classifications were developed by using the experience of the two latest policy years. An example of this procedure is shown in Table VII, below.

Table VII
Classification of Automobile Liability Premiums - 1925

	Policy Year 1922		Policy Year 1923		Combined	
Symbol	Car Years Exposure	Pure Premium	Car Years Exposure	Pure Premium	Pure Premium	Differential
W	400,269	$12.50	316,368	$12.32	$12.42	.823
X	347,305	15.58	257,212	15.10	15.37	1.018
Y	130,906	21.69	90,304	19.23	20.69	1.371
Z	37,450	25.90	19,369	20.70	24.15	1.600
Total	915,930	15.53	683,253	14.58	15.09	1.000

Source: Proceedings of the Casualty Actuarial Society, Volume XI, 1924-1925.

If the percentage distribution of cars in the four categories changed, an adjustment in the differentials was often necessary. The change might have been caused by an increased popularity of cheaper cars. The W, X, Y, and Z system classified cars by size and weight. The W class included light cars, such as the Ford, Star, and Chevrolet, The Buick and Studebaker were included in the X class. Higher priced cars, such as the Cadillac, were classified as Y. Only high powered and extremely high priced cars, such as the Rolls-Royce, were in the Z class. The Z class was discontinued in 1926, and the cars included were relocated in the W, X, and Y categories, The speed, weight, and braking equipment of the individual car were considered factors in loss frequency, and the classification system used was an attempt to keep the rates between risks equitable.

The traffic conditions where the car was operated and the attitude of the public and juries toward claims, suits, and verdicts were also considered important factors affecting losses. At this time, the use of the car was acknowledged as an important rate factor, and vehicles were classed as private passenger cars, taxicabs, or commercial delivery vehicles. The make and model of the car, the locality in which it was operated, and even the personality of the operator (which was an underwriting rather than a rate problem) were known to affect losses both in amount and frequency. The 1923 revision of rates is indicative of the method used for the establishment of rates at that time. Six main compilations of statistical data were made prior to setting the rates:
(1) Separate experience was computed for each city with a population of 100,000 or more.
(2) Separate experience was computed for each territory suburban to the very large cities.
(3) Combined experience within each state was computed for all territories immediately surrounding those cities with populations of at least 100,000.
(4) Combined experience was computed within each state for those cities whose populations ranged between 25,000 and 100,000.
(5) Combined experience within each state was computed for all territories immediately surrounding those cities with a population from 25,000 to 100,000.
(6) Experience within each state for all areas outside of the territories enumerated in the above five computations was computed.

Experience was tabulated by geographical regions and by letter classification for the entire country. From the regional tabulation, average rates for the territory were found. And from the letter classification experience, the relationship between class rates and average rates was determined by breaking down the average territorial rates into the rate classes. To find the territorial rates, the experience of three or four policy years in each territory was combined. By comparing losses incurred with cars insured the pure premiums were determined. The use of judgment in determining the final premiums was considered important; accordingly, the pure premium which had been found was modified to reflect conditions which were not adequately measured by the statistics. Modifications through the use of judgment helped to avoid inconsistencies and any deviations in the rates for particular territories which might suggest to an impressionable public a lack of sureness in determining an accurate means of rate promulgation.

On January 1, 1924, the National Bureau completed a rate revision for automobile liability and property damage liability that was more satisfactory than the revisions of previous years. For the first time, rates for the various territorial divisions and for all underwriting classifications could be established primarily on the basis of complete

statistical evidence, although some judgment modifications were still necessary in determining such factors as credibility. This revision was based on data which the participating companies had been compiling since 1921. For the first time, the automobile committee of the National Bureau was able to develop a systematic approach for establishing rates. Experience was reported for 181 distinct territorial divisions of the country; each territory had been divided into four symbol groups, and each symbol group was further subdivided into three use and driver classifications.

The data were reported for the policy years 1921 and 1922, both as of December 31, 1922. Although the 1921 policy year needed no adjustment, the 1922 policy year was converted to an earned basis by applying a factor of .55 to the written exposure and to the premiums through the use of the one-twenty-fourth method. Since premium writings were assumed to cluster about the fifteenth of the month, a policy written in January was assumed on the average to be 23/24 earned and one written in December was assumed to be 1/24 earned at the end of the year. The experience for the seven prior years indicated to the Bureau that as long as claim costs were stationary or on the decline an earned factor calculated on that basis was safe. It might, however, be dangerous in times of increasing claim costs and claim frequencies. The statistical elements reported were number of cars, premiums, losses paid, losses outstanding, and number of claims so that pure premiums, loss ratios, claim frequencies, and average claim costs could be calculated.

Dependable Experience

Contrary to some opinions, it is not the function of the underwriter to reject so much business that the company experiences no losses. If the underwriter rejects all but the exceptionally safe exposures, he or she has probably turned away much desirable business. The insurance company expects a certain number of losses to occur, and it is just as much an underwriting error to reject profitable business as it is to accept loss-prone business. The objective of underwriting is to produce a pool of insureds, by categories, whose actual loss experience will closely approximate the expected loss experience of a given hypothetical pool of insureds. That is, if an underwriter is told that a pool of exposures with specified characteristics (e.g., a pool of drivers in a certain age bracket with no moving traffic violations) will produce a specified loss rate of, say, 1% of the value of the insured property, then the underwriter should try to place in this pool all the exposures whose characteristics match the specifications. If the underwriter does the job well, the loss ratio of the insureds accepted will closely approximate the expected 1% figure. Putting applicants for insurance in the classification or pool that most closely reflects the real costs of their losses is the essence of good underwriting.

When the statistics had been tabulated, a criterion for dependable experience had to be established, since the volume of experience was too low in some territories and classifications to be truly indicative. The Bureau decided to use an annual exposure of $75,000 in losses as evidence of a dependable spread. The exposure figure was established from actuarial formulas developed from the mathematical theory of probability. As one of its first considerations, the Bureau reviewed the 8 per cent reduction for cars operated for private purposes and the 20 per cent reduction for owner-driven cars. The 181 territorial divisions were consolidated into ten, each composed of cities similar in density of traffic and population. Each of these ten divisions was divided into 12 classifications by use of car (private purposes only, private purposes only and driven only by the owner, and those not falling in the first two

classes) and by car symbol (W, X, Y, Z). The established criteria for credibility were then applied to these 120 divisions, but experience data limited the use of some of them. The ten territorial groupings were then reduced to three, the first composed of the larger cities, the second of the middle sized and smaller cities and villages of the congested East, and the third composed of the rural districts and smaller villages of the West and South. Then the pure premiums for each of the discounted coverages were compared with the pure premiums for the basic coverages for cars of similar make in each of the three territorial divisions. This procedure proved that the two discounts being used were not justified. In fact, in some instances the cars driven only by the owners and used for private pleasure purposes only had even higher pure premiums than those cars in the higher rated classes. Since no essential difference in hazard under the three use and driver classifications was apparent, the data for all three were combined to form a basis for studying the differentials by symbol.

The experience generally substantiated the use of the symbol classification; nevertheless the pure premium for W and Z cars were close together in the larger cities and far apart in the rural communities. Since this indication was the result of only one policy year, the Bureau decided not to change the differentials between territories. The set of differentials adopted for public liability was as shown in Table VIII, below. The absolute values of these differentials were adjusted to produce unity when they were applied to the percentage distribution of cars by symbol groups. The general territory experience indicated the existence of 44.9 per cent of the total cars in the W group, 37.6 per cent in X, 13.8 per cent in Y, and 3.7 per cent in Z.

On average cost per claim, the 1922 data indicated that this average varied little, if at all, from one territory to the next. Thus, the average claim cost in New York did not at that time seem to be any higher than that for a rural area. The relativity in rates between territories seemed to be due mainly to the difference in claim frequency rather than to differences in claim cost. This distinction was particularly important because, if true, the loss cost for a given community could be found by merely multiplying its claim frequency by the average claim cost for the country.

Table VIII
Automobile Liability Classification Differentials - 1924

Symbol	Differential
W	.863
X	1.025
Y	1.240
Z	1.511
Average	1.00

Source: Proceedings of the Casualty Actuarial Society, Volume X, 1923-1924.

Loss Fluctuation

Although claim frequency was a stable and accurate index of a particular city's hazard, severe losses caused considerable fluctuation from one year to another. The statistics also showed that the difference in the claim frequency between the W and X cars was small as compared to that between the W, Z cars. Thus, the difference in losses between the two groups seemed to be caused by the severity of each loss or the average claim cost, and the use of the symbol system seemed justified. With all of these factors in mind, the Bureau proceeded to adopt rates for the individual territories.

Individual experience was reported for each city of 100,000 population and over, group experience for all cities of 25,000 to 100,000 in each state, and group experience ~or all territory exclusive of cities of 25,000 'population and over within each state. To determine the maximum amount of exposure, the data for all symbol groups were combined, a procedure which was valid because the distribution of cars by symbol did not seem to vary between cities. In addition to the data already on hand, the territory experience for 1919 and 1920 policy years was utilized as follows:

1. For each territory a weighted average pure premium was established for the four policy years noted (1919-1922).
2. The pure premiums were arrived at by adjusting the average pure premiums with regard to any local conditions or increasing or decreasing trends.
3. The pure premiums which were then produced were reduced to the 1922 loss level.
4. Then the gross rates or total indicated rates were computed by using the factors for the expense loading, which were 43 per cent for public liability and 44 per cent for property damage.
5. These indicated rates were compared with the existing manual rates to determine the departure from the current rates.
6. Various credibilities were established for the territories on the basis of their respective exposures.
7. Next, allowable departures were determined by the use of credibility factors.
8. The allowable departures were added or subtracted to the current average rates to determine the new average rates.
9. The actual experience level was reproduced by adjusting the new average rates. Such adjustment was necessary because of the introduction of credibility factors.
10. The symbol differentials noted above were applied to the adjusted average rates to determine the final rates for the W, X, Y, and Z classifications.

Again, because of the wide variation of automobile experience from year to year, final rates could not be based on the experience of only the last year, and some credence was given to the existing rate as at least representing past conditions. The Pittsburgh revision of 1924 will serve as an example. The 1923 average manual rate for Pittsburgh was $44.05 as calculated on the actual distribution of cars by symbol group. The indicated average rate for 1924 was $35.07. The actual departure was $44.05 -$35.07 or $8.98. In 1922, Pittsburgh's earned car exposure was 6,830, and by use of the formula previously noted -x is to 1.00 as the square root of 6,830 is to the square root of 50,000 -a credibility factor of about 37 per cent was calculated. The credibility factor of 37 per cent was then applied to the actual departure to compute the allowable departure, so that the allowable departure became 37 per cent of $8.98 or $3.32. This allowable departure was then subtracted from the 1923 average manual rate, which was $40.73. Since the proposed average rates for all territories produced a premium income a little higher than the experience indications, the rates had to be reduced to the experience level. The use of credibility factors produced the inequality. Varying the allowable departure from the indicated departure introduced a change in total premium income. When the reduction was applied to the Pittsburgh figures, the proposed rate was reduced to $38.77. The last step was the calculation of the individual symbol rates, which were then established as shown in Table IX, below.

Table IX
Development of Individual Symbol Rates – 1924
Automobile Liability Rate Revision
Pittsburgh Territory

Symbol	Symbol Differential		Actual Rates
W	.863		$33.00
X	1.025	X $38.77 =	40.00
Y	1.240		48.00
Z	1.511		59.00

Source: Proceedings of the Casualty Actuarial Society, Volume X, 1923-1924.

New Bases

Also in 1924 two new bases of underwriting for public passenger carrying vehicles were adopted. The mileage basis was adopted for fleets of five or more metered taxicabs, and the earnings basis was adopted for fleets of three or more public passenger-carrying vehicles of any type other than metered taxicabs. Figures showed that in 1921 the average taxicab traveled 21,000 miles; the actual mileage ranged from 40,000 in the large cities to 12,000 in the more sparsely populated areas.

The rate per mile varied between one and two cents, depending on the territory and actual mileage covered. The earnings basis, used for jitney and bus risks, made possible the development of a premium that measured the actual exposure; thus, the assured was not required to pay a premium on his reserve busses when they were standing idle in the garage. The earnings rate was developed for individual risks by first ascertaining the average annual earnings per bus operated and dividing this figure into the specified car premium in the manual. The premium for the policy was then determined by applying the earnings rates to each $100.00 of total receipts.

In 1925, the rates were again reviewed. The public liability rates were believed adequate, but the property damage rates were again increased six per cent on a countrywide basis. The 1925 revision of commercial vehicle rates decreased the aggregate liability premium by 8 per cent and increased the property damage premium by 17 per cent. This revision changed the differentials for heavy, medium, and light trucks, since adequate data were available for the first time since 1920, when the separate rates for the three load capacities had been established. The data available indicated that the rates previously charged for heavy and medium trucks were slightly more than adequate. The following table for 1924 was presented as an indication of the need for the commercial differentials.

Table X
Commercial Car Claim Frequency and
Claim Cost by Load Capacity - 1924

Load Capacity	Claim Frequency		Claim Cost	
	Public Liability	Property Damage	Public Liability	Property Damage
Heavy	15.7	70.1	$361	$61
Medium	9.2	41.6	355	51
Light	6.3	25.0	275	40

Source: Proceedings of the Casualty Actuarial Society, Volume XI, 1924-1925.

By 1926 the use of horsepower as a basis for rating had been completely abandoned. The W, X, Y, Z system adopted in 1919 was being used exclusively. This system was

based upon such factors as list price, shipping weight, number of cylinders, cylinder displacement, and wheelbase.

By this time, the policies were providing, without additional charge, coverage for any person using the car with the permission of the named insured. They cove red, in addition, the liability of any person, firm, or corporation legally responsible for the operation of the automobile. The procedures used in the revisions from 1925 to the mid-1930's were similar to those used in the 1924 revision. A comparative example of rates for the state of Pennsylvania for 1922 and 1933 follows. The Z class, which was discontinued in 1926, does not, of course, appear in the 1933 examples. (Please see Table XI)

Merit Rating- Beginning in 1929 and for a period of two years thereafter, the casualty insurance companies experimented with a plan known as the merit rating plan for private passenger automobiles. This plan permitted a discount of 10 per cent from the rates for any assured who had operated his car for two years without either a public liability or property damage loss. Safe driving of automobiles was thus encouraged and rewarded. The results of the plan were watched carefully by company executives and rate makers. In 1932, when two years' experience was available, the allowance was withdrawn. As generally agreed, the plan had some merit, but it became impractical in application. Besides the large number of motorists being given the discount, statistics, at that time, indicated that a claim for personal injuries was expected only once in 20 years, and a property damage claim was expected only once in 12 years. Therefore, an assured who had gone only two years without an accident had not shown that he was a better than average risk and was entitled to a discount. Actually, the 10 per cent credit was being given to such a very large percentage of automobile owners that its effects could have been offset only by charging prohibitive rates to the few unfortunates who did not merit the allowance or by increasing the original rates 10 percent. Since the prohibitive rates were not feasible and a rate increase served no real purpose, the plan was discontinued.

Table XI
Pennsylvania Automobile Liability Rates
1922 and 1933

	1922					1933		
	W	X	Y	Z		W	X	Y
Philadelphia								
Public Liability	47	56	68	82		62	62	79
Property Damage	15	16.50	19	22		18	18	22
Philadelphia Suburb								
Public Liability	28.50	34	41	50		36	36	46
Property Damage	10	12	13.50	15.50		13	13	15
Pittsburgh								
Public Liability	38	45	55	67		49	49	57
Property Damage	13	14.50	16.50	19		14	14	17
Small Cities								
Public Liability	23	27	33	40		19	20	28
Property Damage	10	12	13.50	15.50		9	9	13
Rest of State								
Public Liability	17	20	25	30		19	20	28
Property Damage	8	10	11	12		8	8	12

Source: Pennsylvania Automobile Liability Insurance Rate Manual, 1922-1933.

In the early days, the rates followed a downward trend, traceable possibly to various mechanical improvements. Automobile manufacturers at this time were striving to develop safer and stronger automobiles. They developed steel bodies and stronger frames to replace wooden bodies, four wheel mechanical or hydraulic brakes to replace two-wheeled manual brakes, and balloon tires with smaller wheels to replace the high pressure tires with larger wheels. The use of steel bodies and frames and smaller wheels permitted a streamlined design. As wind resistance was reduced and the center of gravity was lowered, riding qualities and car stability in general were improved. Such changes were reflected in a lower accident rate and consequently a lower cost of insurance. This trend, however, was short-lived. In the 1930's automobile manufacturers began to emphasize the development of more powerful and faster automobiles. The development of safety appliances during these years did not keep pace with the rapid increase in the speed at which cars were operated.

Added Factors

With the early thirties came a rapid increase in the number of hardtop automobiles which permitted operations in all kinds of weather, in the number of miles of improved roads, and in congestion on the highways. All of these factors affected the automobile accident situation. Prior to this time, automobiles had been operated generally during the summer months and had been virtually suspended from service during the winter. Roads, exclusive of those in large cities, had frequently been impassable to automobiles, and the average annual mileage had been much lower. Thus, in the early thirties, rumbles of the complex problems soon to confront the rate makers were originating. The rate makers of the day naturally tried to keep pace with all of these factors through the experience of the companies as it became available. At this point, factors which up to the thirties had been making the experience data significant, began to lose importance. For example, the automobiles in the W classification in 1932 were in no way comparable in speed, in horsepower, or even in appearance to the W automobiles of the 1920's. The W class of the 1930's was more comparable to the X class of the twenties. The need to weigh such factors as increased power and speed, improved highways, increased mileage, and increased congestion was evident. The automobile liability rate maker had the problem of evaluating the effects of changes without being able to measure those changes accurately.

In the collection of statistics in the 1930's, the companies were using a Hollerith card, which contained in code pertinent information on the individual risk, such as address of the insured, make and type of automobile, policy period, limits of coverage, and nature of operation, as well as the amount of premium. A duplicate card was also prepared on which change of car in mid-term, or any other important changes could be recorded. Losses were shown on the duplicate card so that they were charged to the same car, the same policy year, the same coverage, and the same policy under which they occurred. The purpose of this compilation was to determine the hazard to which a car located in a particular territory was exposed. This computation was developed from a record of the experience of all cars garaged in particular territory regardless of where the loss may have occurred After being sorted and tabulated, the experience data of each company) was sent to the National Bureau where it was combined with the data of other companies and made available for rate making purposes.

The data available to the rate maker indicated the number of cars of various classifications insured in each territory for each policy year, the total amount of

premiums covering these cars, and the total amount of losses sustained. From these figures, the rate makers determined the average loss per car insured by dividing the total amount of losses, plus the allocated expenses connected with the investigator and adjustment of claims, by the total number of cars insured.

Average Loss Cost- This figure, called the average loss cost and later the pure premium, represents the average amount per car insured that the companies had to pay out as claims and includes claim adjusting expenses. To this figure, the rate makers added the necessary amounts for agent's com. missions, home office expenses, taxes, and miscellaneous expenses during this period, the pure premium comprised 61.5 per cent of the total premium and expenses comprised 38.5 per cent. Although the rates were based then, as now, on past experience and statistics from earlier periods, they had to reflect hazards expected in the future The rate maker not only had to evaluate his statistical data, but he al. so had to keep abreast of the automobile accident situation and new developments in the automobile industry which might affect the rate. The final figure may be exemplified by the results, without territory breakdown, for the state of Pennsylvania for the year 1932. During the previous policy years, the average loss cost per private passenger car insured was as follows: 1929 -$17.44, 1930 -$17.35, 1931 - $19.04. The 1932 rate for the entire state of Pennsylvania (pure premium portion) was $17.69.

The expense portion of the premium in the thirties included the cost of maintaining branch offices, the expense of the home office automobile underwriting department, the agents' commission, taxes, and are allowance for profit -all items similar to those shown at present. This loading was based on the countrywide ratio of expenses to premiums as disclosed by the companies' expense exhibits filed with the New York Insurance Department. Part of the expenses, such as home office or branch office expense, was fixed; other expenses varied witl1 the premium volume. When the loading percentages were set, the distinction between fixed and variable expenses seemed to have little recognition.

Table XII
Pennsylvania Automobile Liability Loss Ratios
1929 – 1930 - 1931

	Year		
Territory	1929	1930	1931
Pittsburgh	82%	84%	67%
Philadelphia	61	59	75
Scranton, Carbondale	87	114	116
Entire State	68	75	75

Source: Robert C. Mead, The Making of Public Liability and Property Damage Rates, 1933.

Loss Ratios Example

The weakness of the rates developed is reflected in the exhibit below, which indicates the loss ratios in three Pennsylvania territories for the years 1929, 1930, and 1931. The rates in use from 1929 through 1931 were based on an expected loss ratio of 61.5 per cent, and any amount over that figure indicates an underwriting loss. Great reliance was placed on the rate makers' judgment. As Table XII indicates, the final rates for the period covered were not adequate for the hazard involved. In the Scranton area, the loss ratios indicate that the rating processes did not properly anticipate future conditions.

Table XIII Pennsylvania Automobile Claim Frequency and Average Claim Cost – 1928-1932		
	Claim Frequency	
Territory	(per 100 private passenger cars Insured for Public Liability)	Average Claim Cost
Philadelphia	17.5	%239.00
Philadelphia Suburban	8.5	267.00
Pittsburgh	6.6	432.00
Remainder of State	3.4	344.00
Entire State	5.5	314.00

Source: Robert C. Mead, The Making of Public Liability and Property Damage Rates, 1933.

Rating during this period, as currently, directly reflected the claim frequency or average number of claims per 100 cars insured and the average cost per claim. For examples of these figures for Pennsylvania territories for the five year period 1928-1932 see Table XlII. Claim frequency not only indicates accident frequency but also claim consciousness possibly caused by ambitious lawyers. A higher average claim cost in one territory indicates either larger jury verdicts in that area or more severe accidents and injuries.

Early Automobile Liability Insurance Loading Theory

Loading is the amount added to the base rate required to pay expenses. Expense loading, which usually includes a factor for profits and contingencies, is based on the insurer's past expenses, except investment expenses and possibly loss adjustment expenses. If loss adjustment expenses are included in the pure premium, then they are excluded from the expense loading. Investment expenses are not directly reflected in rate calculations. These evaluations and adjustments, in addition to allowances for contingencies and profit, allow insurers to determine the appropriate premium for each particular exposure unit. Insurers add loading for contingencies and profit. Charging for contingencies protects the insurer against the possibility that actual claims or expenses will exceed the projected claims and expenses used in calculating the base rates. If excessive losses or expenses are not incurred, the funds generated by the loading produce additional profit for the insurer.

As of 1920, the expense loading for public liability insurance was as shown in Table XIV. The cost of conducting business was obtained from an analysis of the figures of a number of companies just as the pure premiums were obtained from experience. Yet in the individual expenses, various companies often showed a considerable difference in their results.

Table XIV Automobile Public Liability Expense Loading – 1920	
Acquisition Cost	25.0%
Claim Adjustment	7.0
Taxes	3.5
Administration Cost	9.5
Total	45.0

Source: Proceedings of the Casualty Actuarial Society, Vol. VII, 1921-1922

The variations rose largely because items of expense were allocated to different lines of insurance with no consistency among the companies. Commission and taxes could be correctly charged to the proper line and therefore produced little difficulty. Claim and administration expenses, however, were much more difficult to allocate, particularly when the company was writing a number of classes of insurance. During the 1920's, the allocations were generally made in proportion to the premium volume of each line of business. If total administrative expense was 10 per cent of premium volume, for simplicity's sake each line of insurance would devote 10 per cent of its premium for administration costs. Similarly, when rates were made and the cost had to be broken down by policy, 10 per cent of each policy premium was allocated for administrative expense. In general, the problem of proportioned premium expense allocations has been realized for some time. Even in the early 1920's, the use of a constant percentage of premium for expense loading was criticized. Rigid observance of a definite percentage may lead to inequities in the rating structure. If 45 per cent is the loading required, an insured in an area where the premium is $100.00 pays $45.00, whereas an insured in an area where the premium is $50.00 pays only $22.50 for seemingly the same services. An increase in premium levels will automatically change the amount of premium available for expenses even without a proportionate increase in expenses.

The apparent solution to the problem of expense allocation appeared to be a constant amount for fixed expenses and a percentage of premium for variable ones. In the 1920's, this system was advocated for automobile liability insurance, but a similar system had been proposed for workmen's compensation insurance and abandoned as impractical. Naturally, if one variation is taken into account, all necessary variations must be considered, and a complicated and unwieldy loading formula is required. The experiment in compensation indicated that the results were modified so slightly that they did not warrant the difficulty and expense of such a procedure. This attitude seems to have prevailed to the present time, and the expense ratio is still calculated in most lines as a percentage of the gross premium. The extraordinary time and effort needed to isolate the expense factors and formalize them for rating purposes do not seem justified by the difference in the results. The use of a fixed percentage of gross premium for expenses, though not entirely satisfactory, was adopted to facilitate handling. The important factor became the correct allocation of company expenses among the various insurance lines involved, so that the total expense allocated to automobile liability might be reasonably correct.

By the 1920's, most of the allocation was made strictly through the apportionment method, which depended upon the premium volume written. Several fallacies were inherent in this arrangement. First, the amount of work and time required on a particular policy varied considerably with the type of line being written. Second, the average premium within the particular insurance line varied widely. Consequently ~ if the premium on a line was low and the expenses of handling were high, this line would not be carrying its true share of the expense costs if expenses were allocated merely by premium volume written. Large, easily handled lines produced the opposite result. Since not all companies wrote the same line or had constant percentages of total volume for anyone line, this procedure introduced inequities into the rating procedure. A company specializing in a line for which the handling costs were high might find that its allowable expenses for handling were not sufficient because the experience of other companies on other lines tended to reduce the total amount allowable on the line in question.

One of the basic problems was the allocation of salaries, since many of the other expenses would follow naturally the basis used for salary allocation. To achieve a more equitable allowance for home office salaries, one suggestion called for the division of the entire force into groups, dependent upon the work being done; the total payroll was to be calculated for each group. Those groups working on only one type of insurance would present no problem; in other groups the assignment could be made per clerk or per group of clerks, and in some cases a percentage split based upon judgment might be effected. Time studies were suggested to determine the volume of work handled for each line of insurance. Service departments could be allocated only according to the departments they serviced and probably by a time study analysis of time spent per department. The other groups, probably assignable to general overhead, had to be arbitrarily assigned to a specific line of insurance. Where volume of work allocations had to be made, the use of number of policies written per department or number of entries made in statistical or accounting departments was suggested. According to a proposal, rent was to be allocated by floor space, furniture and fixtures by depreciation of the equipment used, and miscellaneous administrative expense by the department benefited, Inspections and payroll audits were to be proportioned according to the lines handled, usually by volume, and unallocated adjusting expenses possibly by the number of claims handled in each line. Thus, even 35 years ago, the need for accurate accounting was recognized.

Companies currently employ complicated computer-generated cost algorithms for the allocation of expense to provide accurate apportionment. Unless expenses are properly distributed, an automobile liability policyholder may be paying part of the expenses of a general liability policy. Although the expenses involved cannot be measured exactly, the current procedures are certainly an improvement over past practices.

Summary of Automobile Liability Rating to 1932

In its early development, automobile liability rating theory was a complicated structure based almost entirely upon the judgment of the rate makers and checked “after the fact" by loss ratios. The earliest rates seem to have been influenced vary greatly by competition; they had, in fact, no close relationship with the hazards involved. As the carriers began to realize the importance of cooperative rate making, some stability appeared in the rating process. Although the actual rates were set by judgment, those factors thought to have bearing on the hazard, like the additional premium charged for the explosion risk, were considered. The establishment of rates by the horsepower of a vehicle was the first classification system. At first, rates were set only for horsepower ratings below or above 12. Later, the system was broadened so that different rates were established for a number of horsepower classifications.

When cooperative rate making became firmly established, nearly 85 per cent of all companies adhered to rates set by the Liability Conference, a rating organization which used the meager statistics of its members, along with a liberal sprinkling of judgment. Although the early practices were admittedly crude, the carriers had little objection. Territorial distinctions were not considered until 1917, when the country was divided into 11 rating territories. By that time, a distinction was being made between gasoline and steam vehicles and between private passenger, commercial, dealers', and public automobiles. In spite of the advances in technical rating theory, many of the procedures seem, from the little evidence available, to have been based upon insufficient statistics. When the judgment of the rate makers proved unsound, the procedures were changed in an attempt to find some basis for equitable rates.

By 1920, the policy year system of reporting exposures and losses had been developed, and its use continues at the present time. The 1919 revision introduced list price into the classification system, but this basis for rating was superseded within a short time by the W, X, Y, Z system, whereby vehicles were classed by their size and weight. Commercial classifications, based at first on the use of the vehicles and later on the load capacity, were developed.

By 1923, a more systematic method of rating had been established. The territorial divisions were more extensive, and a greater volume of statistical data became available. Incomplete policy year data were converted to an earned basis to allow consideration of the most recent experience possible. Credibility tables were developed so that an individual territory's experience would be used in setting its rate only to the extent warranted by the experience. Judgment was still being used to vary the rates if the rate makers felt the statistics did not measure future hazards, but judgment rating was becoming less important. By the mid-1920's, weighted average pure premiums were being developed as part of the calculation to determine the indicated and allowed departure from the current rate. Differentials for vehicles driven only by their owners or operated only for pleasure purposes were introduced and then discontinued since available statistics showed that they were not warranted.

By 1926, horsepower had been completely abandoned in the rating system, and the W, X, Y, Z system was used exclusively. A merit rating plan, in use for about two years after 1929, was withdrawn as un- satisfactory in 1932. In the early 1930's, the rate makers began to realize the importance of trends in automobile rating and to modify the rates accordingly. By that time, statistics were being collected in sufficient volume to measure nearly all of the judgment processes, but judgment rating was to remain important for many more years.

Chapter 3 Regulation and Auto Insurance

This chapter examines the effects of state regulation on the cost and availability of automobile insurance. There are differences in the methods that states use to regulate insurance rates and to ensure the availability of insurance.

Misunderstanding is the byword when it comes to the purposes of regulation and its potential for solving problems in insurance markets. Insurance is one of the most heavily regulated industries in the economy. Regulation has existed for many years. Insurance purchasers and consumer organizations view regulation as a panacea for any problem that develops in the market. Although regulation can help in some instances, it can also create or exacerbate existing problems. In many cases the best approach may be less rather than more regulation or different, more imaginative regulatory approaches, rather than the intrusive approaches that have been used traditionally. Since the U.S. economy is based on free-market principles, regulatory programs should be designed to complement rather than substitute for the operation of the market system.

There is increasing concern in Washington over whether continued state regulation of the insurance industry is in the public interest, and whether insurance companies should continue to have limited immunity from federal antitrust statutes. In part, these concerns have arisen because states have changed dramatically the ways they regulate this industry since Congress passed the antitrust immunity (McCarran Ferguson) legislation in 1945. Issues posted include efforts to examine the effects of states' increased reliance on competitive market forces to regulate the insurance industry including how the cost and availability of automobile insurance is affected by states using more competitive approaches and exploring the experiences of states that restrict the factors that automobile insurers may use in establishing different premiums for different types of drivers.

Making Insurance Available

States differ in the methods they use to ensure that auto insurance is widely available and that premiums are not unfairly discriminatory. The predominant method of ensuring availability is through establishing state automobile insurance plans, which provide coverage to drivers whom insurance companies are unwilling to insure voluntarily. In addition, some states have prohibited differences in premiums based on such factors as gender and age. States generally use their regulatory authority to ensure that insurance companies remain solvent, that insurance coverage is affordable and widely available, and that premiums are not unfairly discriminatory. Until the 1960's, nearly all states used a "prior approval" method of rate regulation to ensure that automobile insurance premiums were adequate to maintain company solvency, but were not excessively high. Under this approach, the premiums that insurers wished to charge were to first be approved by state insurance departments. Since the early 1960's, however, most states have adopted more competitive approaches to rate regulation. In these states, competition is relied on to ensure that premiums do not become excessively high and insurance companies are not required to receive state approval before establishing their rates.

Insuring personal automobiles cost United States consumers lots of money.

Average Cost of Car Insurance in the U.S. 1996-2005					
Year	**Average Cost**	**% chg**	**Year**	**Average Cost**	**% chg**
1996	$691	3.4	2001	$726	5.2
1997	705	2.0	2002	781	7.6
1998	703	-0.3	2003	824	5.5
1999	685	-2.6	2004	840	1.9
2000	690	0.7	2005	829	-1.3
Source: 2007 National Assoc of Insurance Commissioners					

In 2007, the auto insurance industry was a $160 billion dollar business. There are continuing concerns about both *affordability* (as rates have been rising) and *availability* (as some insurers have suspended writing in some states) being raised throughout country.

Consumers and consumer organizations in many states have targeted the auto insurance industry as the primary source of the auto insurance crisis. Insurers have been accused of creating the auto insurance crisis through inefficient management, anticompetitive practices, and lax claims settlement policies. The contention is that insurers are oligarchs with excessive freedom in generating exorbitant expenses, which are then passed along to the consumer in the form of higher premiums. That view has provided the underpinnings for the new regulatory movement in auto insurance. The most highly publicized example of the new wave of auto insurance regulation was California's Proposition 103.

Proposition 103

Approved by California voters in 1989, Proposition 103 enacted sweeping changes in auto insurance regulation. It rolled back premium rates by 20 percent, reestablished rate regulation in a state where rates had been unregulated for decades, and called for an elected insurance commissioner. Although the rate rollback was later overturned by the courts, most of the Proposition 103 provisions went into effect. Less publicized but equally important changes have taken place in other states with auto insurance problems such as Pennsylvania, Massachusetts, and New Jersey. In addition to actions taken by individual states, attention on the national level has been directed at potential federal intervention. Insurers have long enjoyed an exemption from federal antitrust laws under the McCarran-Ferguson Act, passed in 1945. As insurance problems have escalated, pressure has grown to repeal McCarran-Ferguson and to subject insurers to additional federal oversight.

REGULATION- PURPOSE AND POTENTIAL

Citizens often have conflicting feelings about business regulation. On the one hand it is recognized that businesses, especially large businesses like insurers, have much greater economic power than any mere citizen. On the other hand, it is sometimes felt that the governmental bureaucracy can be a little too intrusive, too controlling, as when it prohibits land development in order to preserve the habitat of a particular small species of birds, or some other restriction with which the public may not sympathize.

These conflicting concerns point to a key question for both political science and economics: Why does regulation exist? What drives it?

In general there are three major theories of economic regulation: public good theory, capture theory, and special interest theory.

Public Good Theory

This theory of economic regulation is rooted in perception that government must step in to regulate markets in instances when markets are unable to regulate themselves. These so-called "market failures" occur where the price mechanism that regulates supply and demand breaks down, forcing government to take action. Natural monopolies and external costs (a.k.a., "externalities") are the most prominent types of market failure. Natural monopolies occur when the fixed costs of supplying a good are so great that it makes sense for only one firm to supply that good. Public utilities like the delivery of electricity or water/wastewater services to homes usually require so much money to build the necessary infrastructure (erect utility poles and lay pipelines) that no company would take on the task without confidence that it would control a sizeable portion of the market.

The problem is that the monopoly businesses that arise from this situation tend to use their market power in ways that can be highly detrimental to the community at large. This is where governmental regulation becomes important.

Externalities occur when the costs or benefits of producing a good or service are not fully incorporated into the price. Economists often cite air pollution as a cost incurred by almost any sort of economic activity, but which is often ignored when determining the prices. When the polluting activity is very concentrated, as in a manufacturing plant, the costs to the surrounding community can be considerable. Yet, without governmental regulation there is nothing that compels the plant to either minimize the environmental impact or otherwise compensate the community for bearing that part of the cost of production.

These sorts of market failures, along with the general need for mechanisms of regular public disclosure by business, make regulation critical if the public interest is to be protected. In this view regulation results from the need to protect the public from the negative impacts of such market failures and other harmful business behavior.

Capture Theory

The public-spirited vision of the public interest theory of regulation began to be challenged systematically in the early 1970s when researchers suggested that the individual regulatory agencies of government did not work for the public interest at all. Instead, they worked for private interests who actually demanded to be regulated as way of enhancing profits. Going further, some even argued that each individual government agency was "captured" by the leading organized interest (a company or business association) in the industry over which a particular agency operated (Stigler 1971).

This view rests on the understanding that the political actors most interested in the regulation of a particular industry are the companies in that very industry. In Texas, for instance, the oil and natural gas industry is thought to be the single party most interested in the types of regulation that the Texas Railroad Commission promulgates,

and the Texas Farm Bureau is the most interested party with regard to state agricultural policy.

Because of this tightly focused interest orientation among economic actors, it is thought that each regulating agency has been isolated and essentially taken over by a single powerful interest or interest association representing the very industry under regulation. Furthermore, it is believed that powerful interests in one industry generally do not interfere with the regulating activities in other industries. In other words, the Farm Bureau doesn't mess with the Railroad Commission and the oil and gas industry doesn't mess with the Texas Department of Agriculture.

This line of analysis implies that there is little or even no competition over control of public policy among economic interests. Within each industry a single company or industry association dominates, and each industry minds its own business being careful not to interfere with other industries and their particular public agencies. Citizens, meanwhile, are thought to be largely absent from the processes of economic regulation. This exclusion of citizens is thought to result from two things: the issues and processes involved are complex and arcane, and the impact of regulation on any individual citizen is relatively light compared to the impact on the businesses under regulation. A citizen paying a few dollars more per month for electricity is relatively insignificant compared to the millions of dollars at stake for an electric utility company. In short, regulation exists not because citizens need it, but because the regulated industry wants it!

The capture theory of economic regulation provides some of the theoretical foundation for the concept of "*iron triangles*" (also known as policy sub-governments), which depict a three-way relationship between a government agency, the industry over which it has responsibility and relevant legislative committees.

Special Interest Theory and Group Competition

This approach to understanding regulation developed as a response to the capture theory. Some researchers reject the capture theory's emphasis on monopoly control of individual agencies by one narrow group of powerful interests. Instead, they propose that multiple groups actually compete for control of an agency's activities (e.g., Peltzman 1976, Becker 1983).

The average citizen is not a major factor in this model either. Instead, powerful groups fight among themselves to use the coercive authority of the government to makes rules and regulations that would help their particular businesses. Such rules might help one industry or company, but hurt others. For example, the recent attempts to get the Texas state government to permit the private sale of subsoil water rights on state-owned lands in west Texas, might help new companies hoping to sell water to distant communities. But this would come at the expense of farmers and ranchers who depend on underground springs. So, the contending special interests concerned with this issue lobby the Texas Land Commissioner and other state agencies to either permit or prevent such actions.

As in the capture theory government regulation is not regarded by the regulated industries as an inherently bad thing. Instead, the regulated industries or companies actually demand regulation. The key difference between the capture theory and the special interest theory is that the latter holds that competition among special interests can be both widespread and intense.

It is important to think of the role of citizens in policy making, and also the degree of competition among parties interested in a particular area of regulation. In the public interest approach, citizen needs and protections in the face of market failures are central. In the other two approaches citizen needs are not relevant at all. Instead, in those two approaches industries and companies actually demand regulation in order to create conditions for greater profitability. The main difference between the capture theory and the special interest approach is their treatment of competition among interest groups. In the capture theory only a single group or company controls a particular agency. The special interest approach, by contrast, emphasizes the presence of at least limited competition for agency control among special interests.

STATE REGULATION OF INSURANCE

The Commerce Clause, Article I, section 8, clause 3 of the United States Constitution, provides that "Congress shall have power . . . to regulate Commerce . . . among the several states." However, states, rather than Congress, initially regulated the business of insurance. Organized regulation of the insurance industry by the states began in the mid-1800s." The practice of state regulation of the business of insurance was validated in 1869 in the United States Supreme Court case of *Paul v.Virginia.* In *Paul*, the Court upheld a Virginia statute requiring out-of-state insurers and their agents to obtain a license before conducting business within the state. The Court held that insurance was not commerce within the meaning of the Commerce Clause, and, therefore, states held exclusive regulatory authority over the business of insurance. For 75 years following the *Paul* decision state authority over insurance regulation was unquestioned. The states created a network of laws, regulations, taxes, and cooperative accounting practice. Many states, enacted legislation based on model acts of the National Association of Insurance Commissioners (NAIC), an organization composed of the chief insurance regulatory officials of the 50 states, the District of Columbia, and the U.S. territories. The states' adoption of these model acts helped to establish a measure of uniformity in the states' regulation of insurance.

In 1944, the Supreme Court reviewed its decision in *Paul* in *United States v. South-Eastern Underwriters Association.* The South-Eastern Underwriters Association, a ratemaking organization, was charged with restraining commerce in violation of the Sherman Antitrust Act by fixing and enforcing arbitrary and noncompetitive premium rates. The Supreme Court rejected South-Eastern's claim that the Sherman Antitrust Act did not apply because, under *Paul*, insurance is not commerce. The Court reversed its holding in *Paul* and ruled that insurance is commerce, and when transacted across state lines, it is interstate commerce subject to federal law, including the Sherman Antitrust Act. "As a result of [*Paul*], the constitutionality of all state statutes regulating the insurance business was called into question and a state of confusion reigned. Congress, unlike the states, had passed no laws specifically regulating the business of insurance. Congress responded to the *South-Eastern Underwriters Association* case by enacting the McCarran-Ferguson Act in 1945, declaring in the Act that "the continued regulation and taxation by the several States of the business of insurance is in the public interest." The Act granted states the power to regulate the business of insurance, removing all Commerce Clause limitations on the states' authority in this area. Congress' authority to delegate this power to the states under the Commerce Clause was upheld by the Supreme Court in the 1946 case of *Prudential Ins. Co. v. Benjamin*.

A provision in the McCarran-Ferguson Act would permit the federal government to resume control over the regulation of the business of insurance if state regulation becomes inadequate. However, after the enactment of the McCarran-Ferguson Act, "the states acted to demonstrate a level of regulation of the insurance business that would preclude federal regulation. . . . As a result, '[l]argely through the efforts of the NAIC . . . uniform legislation was developed and successfully presented to various state legislatures.'"[2] Acting to avoid federal regulation of the business of insurance following a number of insurance company insolvencies in the 1980s, the NAIC instituted an accreditation program for state insurance departments. In June 1989 the NAIC adopted a set of financial regulation standards for state insurance departments, which identified model laws and regulations, and regulatory, personnel, and organizational processes and practices necessary for effective solvency regulation. Under the Accreditation Program, each state's insurance regulatory agency is reviewed by an independent review team that assesses that agency's compliance with the NAIC's Financial Regulation Standards. For accreditation, a state's regulatory agency must have sufficient statutory and administrative authority to implement these standards, and the necessary resources and organization to carry out that authority. States complying with these standards are accredited by the NAIC for a five-year period. The states' enactment of uniform legislation, along with the effort displayed by the states in regulating the business of insurance, apparently has been adequate to prevent the federal government from taking regulatory control.

Rate Regulation.

A unique feature of insurance is that the cost of the insurance product is not known until well after it is sold, when the losses that the policy covers have occurred and been settled. For almost all other goods and services that consumers purchase, the price is set after they have been produced. This makes the pricing question relatively straightforward. Insurance, however, is pricing the future. The more historical information that a company has on which to base the forecast of future losses, the more accurate the price can be. Allowing or mandating insurers to share past loss experience benefits all insurers by enabling them to generate more reliable prices.

Moves to regulate auto insurance rates are based on the view that the insurance industry uses "unfair and discriminatory pricing practices". Two forms of regulation have been imposed. One form restricts the factors that insurance companies are allowed to use in defining risk categories --this is called rate compression. A second form restricts either the overall level of premiums or the rates applied to particular categories -- this is called rate suppression, which arises when regulators refuse to permit market-clearing rates.

Rate compression is illustrated by California's Proposition 103 which stipulates that, without the additional approval of the insurance commissioner, passenger automobile insurance rates may apply only the following three factors:
(1) the driver's safety record,

[2] 12 Don Goldbaum, *The National Association of Insurance Commissioners and the Regulation of Insurance*, L.S.C. Research Memorandum R-120-2727 (1994) (quoting from J. Hanson, R. Dineen, and M. Johnson, 1 *Monitoring Competition: A Means of Regulating the Property and Liability Insurance Business* 217 (1974)).

(2) the number of miles driven annually,
(3) the number of years of driving experience.

Such characteristics as the driver's place of residence, age, sex, and marital status could no longer be used without the approval of the insurance commissioner. These factors were frequently used by insurance companies prior to the passage of Proposition 103.

Insurance companies, of course, have an incentive to reject customers who must be charged suppressed rates. Since auto insurance is mandatory in all states, rejected customers still need insurance, which is generally provided through assigned risk pools. Drivers who are denied auto policies are placed in the assigned risk pool, and charged a premium that may be below the actuarial costs. Each auto insurance company in the state is then required to take a share of the assigned risk pool equal to its share of the overall market.

Most of the post-McCarran rate regulatory laws stipulate that rates should not be "excessive, inadequate, or unfairly discriminatory." Most states require companies to obtain prior approval from the state insurance commissioner for changes in rates. An important provision allows insurers to pool data through organizations known as rating bureaus. Rating bureaus (such as the Insurance Services Office) collect data and make it available to member companies for ratemaking. In addition, for many years the bureaus filed rates on behalf of their member companies so that most insurers doing business in any given state had the same rate structure. The Insurance Services Office voluntarily ended that practice in 1989. Pooling of data is still practiced and permissible, however.

Theory of price regulation

According to George Stigler[3], public price control has two aspects:
Correction of monopolistic pricing
By granting firms monopoly licenses in various local domiciles, policymakers are hoping to take advantage of economies of scale in production. If there are scale economies, monopolists will face significantly lower costs of production on a per unit basis than will firms competing with each other in a competitive market environment. This is a "have your cake and eat it too" strategy. Without price regulation, the benefits of these scale economies would naturally accrue to the owners of such firms. However, price regulation is imposed so that benefits accrue instead to consumers in the form of lower prices.

- Ideally, the objective is to regulate rates so that the firm still earns a "fair" return while providing the scale economies which lead to lower consumer prices.
- The "fair" return standard was set by a U.S. Supreme Court case which was argued in 1943 and decided in 1944 (Federal Power Commission *et al.* v. Hope Natural Gas Co.)
- By providing a "fair" return, the government does not violate the "Takings" clause of the U.S. Constitution (the last clause of the 5th amendment, which reads, "nor shall private property be taken for public use, without just compensation").

Provide private benefits at public expense to special interest groups.
Prices of farm products are regulated (raised) in most nations with the intention of improving farmers' incomes.

[3] George Joseph Stigler was an American economist. He won the Nobel Prize in Economics in 1982. Stigler is best known for developing the *Economic Theory of Regulation*.

Prior to the deregulation of the banking industry more than twenty years ago, the fixing of interest rates paid by banks was undertaken to improve bank earnings.
Such policies are invariably defended on various economic and ethical grounds but reflect primarily the political strength of large and well organized interest groups.
There are no natural scale economies in the production of insurance services. This is a fact that is well documented by at least two generations of rigorous empirical research. Therefore, it would appear that Stigler's second rationale better fits the case of insurance. Originally, insurance rate regulations were imposed because there was a stated concern that insurers might be motivated to cut prices to unsustainably low levels as a way to acquire market share. Therefore, it would seem that price regulations were initially intended to benefit producers of insurance services by providing excess rates of return on their investments in the insurance business. The argument here is that such groups were successful in coalescing and bringing political pressure to bear on the regulatory authorities to produce such an outcome. This idea of regulatory "capture" was quite insightful and profound, and it (among other things) helped Stigler win the Nobel Prize in 1982.
In recent years, however, the pendulum has swung in such a way that rate suppression (as opposed to expansion) has become more the rule rather than the exception. The special interests here include regulatory agencies, the plaintiff's bar, and consumer groups. Economic theory suggests that over time, persistent regulatory suppression of insurance rates will likely cause product quality to deteriorate and limit insurance availability as insurers seek opportunities to exit the market.

Competition is reduced by prior approval regulation because the ability to compete on price is by definition (arbitrarily) limited by the state. Availability is reduced by prior approval regulation because this form of rate regulation tends toward rate suppression; since one cannot earn a fair return in a rate-suppressed environment, there is little incentive to expand one's business of writing insurance policies. Finally, increased volatility in insurance premiums will result from delays in the rate approval process under prior approval rate regulation. Regulatory lags typically produce lower rate increases during periods of rapid cost growth and larger rate increases or a slower rate of reduction in periods of stable or declining claims costs The state of Illinois is unique because it does not have any formal rate regulation of automobile insurance rates whatsoever. The Illinois auto insurance market is often held up as an example of competitive markets. It is amongst the most competitively structured insurance markets in the U.S. economy. Insurer loss ratios and premiums are less volatile than in regulated markets, and premium levels tend to be lower than in comparable areas. Illinois also boasts the lowest percentage of uninsured drivers, one of the lowest residual market shares, and lowest costs of insurance regulation in the entire U.S. economy.[4]

About half the states regulate automobile insurance rates. Those states typically require prior approval of rate changes. Most other states have some form of "competitive" rating law that affords insurers more freedom in filing and changing rates. During the 1970s there was a trend toward competitive rating in automobile insurance. The prevailing economic theory was that regulators tended to become "captured" by the regulated industry so that regulators work for the benefit of the industry rather than the public. In fact, in some industries regulated prices were higher than competitive prices. Although

[4] See D'Arcy, Stephen P, 2001, "Insurance Price Deregulation: The Illinois Experience," Brookings Institution Insurance Rate Regulation Conference (January 18, 2001).

researchers have found that premium rates tended to decline in some states after regulatory repeal, the more consistent finding has been that regulation tends to depress premiums. On the whole, auto insurance prices tend to be lower in regulated states than in competitive states, a result that conflicts with Stigler's theory.

Aspects of Insurer Solvency Regulation

A wide array of insurer practices is regulated by the state to ensure that domestic insurers remain solvent and in healthy financial condition. The traditional focus of regulation has been the maintenance of solvency. Insurers are required to file extensive financial reports ("annual statements") with state insurance commissioners. Solvency regulation includes establishing capitalization requirements for insurers, examining the financial condition of insurers, the approval and pricing of insurance products, requiring minimum insurance company reserve and surplus requirements, and regulating the ways in which an insurer can invest its money. Commissioners also conduct detailed audits of all insurers at three- to five-year intervals. Although insurance solvency regulation absorbs a high proportion of the resources of the state regulatory system, it has been criticized as lax and ineffectual. The reinsurance contracts that insurers enter into are regulated to ensure that when an insurer purchases reinsurance to cover certain policies, the reinsurer will assume responsibility for the payment of claims on policies assumed by the reinsurer. If the insurance company has affiliates or is set up in a holding company system, transactions between affiliates are regulated to attempt to provide that the transactions are beneficial to the insurer.

RATE EQUITY AND MARKET

Measurement of profitability is to some extent, like beauty, in the eye of the beholder. The connotation of the word “profitability” is highly dependent upon who is assessing profitability and to what purpose. To investors and insurers, “profitability” has a golden ring to it. To policyholders of a stock insurer it sounds like markup, while to those insured by a mutual company it is neutral. Insurance regulators either encourage profitability, when concerned with solvency, or seek to curtail it, when regulating rates. Regulators have the responsibility to maintain rate equity. Rate equity is stipulated as a regulatory goal in insurance rating statutes through the requirement that rates not be "unfairly discriminatory." The usual definition of unfair discrimination is the existence of rate differentials that are not justified by cost differentials. For example, charging policyholders different rates although their expected losses are approximately the same would be viewed as unfairly discriminatory.

Although the goal of rate equity sounds reasonable in principle, as is the case with many regulatory goals, implementing the rate equity standard can have unintended adverse effects. The goal of equity interacts with that of affordability. As auto insurance prices have risen, political pressures have developed to hold down rates for drivers subject to higher prices. Statistically, certain types of drivers, such as youthful males, and certain geographical areas, such as inner cities, are subject to higher claims rates. The response of the insurance industry has been to charge higher prices to drivers in those categories.

Rate Tempering

Political opponents of the insurance industry's cost-based rating system have criticized that system by using several lines of attack. One is to contend that the industry's cost-based ratings are inaccurate. Opponents point to considerable overlap among drivers in various risk groups. They argue that relatively good drivers in high-rate categories such as inner cities may have lower loss costs than relatively bad drivers in low-rate classes and territories. Insurance rate classes are said to be overly heterogeneous; they group together drivers with significantly different expected losses and charge them the same premium rates. Second, opponents argue that rate classes rely too heavily on proxy variables. For example, women on average drive less than men, and so insurers use gender rating as a proxy for mileage, which is difficult to measure. The industry's critics call for the elimination of inaccurate classification criteria and proxy variables such as gender.

Some critics go even further by suggesting the flattening of rates across categories of drivers. They argue that it is socially inequitable for residents of cities to pay insurance rates that are four to five times as high as rates in the suburbs. Such rates may force urban drivers to go without insurance or to forgo driving altogether. This is said to create severe economic inequities by making it more difficult for urban drivers to get to work and thus possibly restricting their employment opportunities. In response to such criticism, policymakers in densely populated states with high insurance premiums such as New Jersey and Massachusetts have flattened or "tempered" rate categories to ease the premium burden on urban drivers.

While it is easy to sympathize with the social and economic problems of urban drivers, it is also important to recognize that rate tempering can have severe consequences for insurance markets. Economists have identified risk classification as a critical element in the economic viability of the insurance system. If insurers cannot charge premiums to drivers that fully recognize cost differences, low-cost ("low-risk") drivers end up subsidizing high-risk drivers because the low-risk drivers pay premiums in excess of their costs and high-risk drivers pay premiums that are less than their costs. Because the high-risk drivers are subsidized, they have a stronger incentive to buy insurance and may purchase higher coverage limits. The subsidies that are imposed on low-risk drivers, on the other hand, give those motorists an incentive to purchase lower coverage limits--the minimal coverage required by law--or to drop out of the insurance market altogether. With high risks comprising a larger component of the market, average costs will increase and premium rates must go up. The resulting increase in insurance inflation worsens the subsidy problem and may force additional low risks out of the market. The resulting price spiral ultimately may lead to market failure and the collapse of the insurance market.

Market failure has occurred in two states that have long had severe insurance problems--New Jersey and Massachusetts. Both states have very high insurance rates because insurance costs are high. Insurance costs are high in those states because of high accident rates, high auto theft rates, and, at least in New Jersey, generous medical benefits provided in automobile insurance policies. Because of the high costs in those states, political pressures for rate relief have been intense for the past fifteen to twenty years. Both states have undertaken strict prior approval rate regulation that has made auto insurance unprofitable for the insurance industry. In addition, both states have engaged in rate tempering to reduce the cost burden on urban residents. As a result,

the voluntary market for auto insurance has virtually ceased to exist. More than 50 percent of the drivers in each state are in the residual market, which provides a mechanism for insuring drivers who cannot obtain insurance in the normal voluntary insurance market. Having more than 50 percent of drivers in the residual market implies that insurers do not want to write insurance coverage on most drivers in the state. Thus, the companies have concluded that they cannot earn a fair profit on those policies. That market failure is due to premium tempering and restrictive rate regulation.

When a high proportion of drivers are being assigned to insurance companies involuntarily, the logical question is: Why do insurers not pull out of the market altogether in states like New Jersey and Massachusetts? Regulators engage in a form of regulatory blackmail to prevent insurers from withdrawing from the auto insurance market. Most insurers are not auto insurance specialists but rather write various types of insurance. A high proportion of revenues for most companies is derived from commercial coverages such as workers' compensation, commercial multiple peril, commercial auto, and general liability. If a company indicates its intention to withdraw from the private passenger automobile insurance market, the usual regulatory response is to threaten to cancel the insurer's licenses to write all types of coverage in the state. Thus, the insurer would have to give up profitable commercial writings to leave the auto market. Most insurers cannot afford to drop their commercial writings and thus are forced to absorb the losses imposed by restrictive auto insurance regulation.

The ramifications of restrictive regulation are even more far-reaching. Although companies may not be able to withdraw completely from unprofitable markets, there are other steps they can legally take to recoup lost profits. For example, insurers may cut back on services or delay claim payments to save money. Thus, buyers pay lower premiums than would be charged in the absence of regulation but also receive less valuable insurance coverage.

If restrictive rate regulation and rate tempering are not the answer to the social problems caused by high auto insurance costs, what should be done to provide rate relief to drivers in urban areas? The more appropriate approach would be a direct subsidy to such drivers that could be used only for the purchase of basic automobile insurance coverage. That would permit the insurance market to operate properly, providing the level of services and insurance availability desired by the majority of drivers, and would put an end to the destabilization created by regulatory tinkering.

It should be clear from this discussion that insurance regulation is a rather risky proposition. Well-intentioned regulatory responses may not only fail to solve problems but may actually destabilize markets. Most observers agree that it would be better to rely on competition to set prices and determine the services offered in the insurance market. That is not a viable option if the industry is not competitive, however.

STRUCTURE OF THE AUTO INSURANCE MARKET

State statutes are generally predicated on the belief that market competition is an effective and efficient regulator of insurance rates. In a competitive market, rates should approach a theoretical equilibrium point that matches consumer demand for risk mitigation to the willingness of insurers to supply coverage. Competitively determined prices serve an important signaling function or feedback mechanism to market participants. Prices alert consumers and producers to adjust demand and supply of

products and services. In insurance, premium rates are particularly salient signals of risk levels: market rates (subject to actuarial uncertainty) ought to most accurately reflect risk levels associated with a given activity. Consumers respond to price incentives in part by reducing excessively risky activity, or by actively attempting to mitigate such risks.

Market Efficiencies

The market efficiency of the insurance industry has been the source of considerable controversy. Insurers contend that the industry is competitive and efficient and doing the best possible job under difficult circumstances. Consumers, consumer-activists, and many politicians are on the other side. They accuse the industry of being inefficient and anticompetitive. The usual allegation is that the industry is earning excessive profits by pocketing investment income earned on policyholders' funds. To sort out the conflicting claims, the structure, competitiveness, and profitability of the industry are examined.

There are over 2,500 property-liability insurance companies and groups, the number of companies operating in any given market is considerably smaller because some firms specialize, either by line of business or by geographical area. To obtain a more accurate indication of the number of competitors, it is necessary to look at insurance markets by line of business and by state. For example, in 2015 in California, there were 100 property/casualty companies doing business. In Texas, there were 199 companies (Insurance Department Resources Report, 2015, National Association of Insurance Commissioners (NAIC)).

It is important to keep in mind, however, that not all insurers operating in a given state write business in all parts of the state and that some insurers do not issue coverage voluntarily on all types of drivers. Thus, competition may be present for the most economically attractive regions and driver types, but drivers with less desirable rating characteristics may tend to face limited options with regard to potential insurers. Enabling insurers to charge adequate rates in the "high risk" areas would lead to more competition in those markets.

Another indicator of market structure is the concentration ratio. Nationally, the leading firm, State Farm, accounts for 21 percent of the total premium volume in private passenger auto insurance. The top four firms account for 43.9 percent. By normal standards, that is not a level of concentration that would pose a significant threat to competition. In some states concentration is considerably higher, however. The four-firm concentration ratio ranges from 33 percent in New Hampshire to 81 percent in Alaska, and the median four-firm ratio is 57 percent. The median twenty-firm concentration ratio is 86 percent. Those levels of concentration are much higher than the national ratios usually mentioned in discussions of insurance markets and could conceivably be high enough to pose a competitive threat, depending on the other characteristics of the market.

Hurdles to Market Efficiency

Most of the big writers of auto insurance use a distribution system called direct writing. Direct writers sell directly to the public either by using the internet, mail or telemarketing or by retaining exclusive agents--agents who represent only one company. State Farm,

Allstate, and Nationwide all use exclusive agents. Other companies, including the more traditional firms such as Aetna, Travelers, and CIGNA, use another form of distribution system--independent agents. Independent agents represent several companies rather than place business exclusively with one company. This is why most economists are not concerned about the overall level of concentration in the auto insurance market. Market leaders have acquired their high market shares primarily by being more efficient. The efficiencies come primarily in marketing or distribution costs. On average, about one-fourth of the auto insurance premium goes for company marketing and administrative expenses. That component covers insurance home office expenses as well as marketing costs.

Economics of insurance regulation

The *public interest* view of regulation is that explicit regulation should be applied only in cases where market conditions deviate significantly from the ideal of a competitive market; i.e., a market that is characterized by the existence of many buyers and sellers, where firms can freely enter and exit. Even if markets are relatively concentrated, so long as they are contestable, then this notion still applies (e.g., the operating system software market, though dominated by Microsoft, is contestable (e.g., Linux, Mac OS X)).

The public interest perspective has important implications for insurance rate regulation. Specifically, it implicitly recognizes that rates *cannot be excessive* if markets are sufficiently competitive or contestable. In other words, if the market is either competitive or contestable, then this constitutes a sufficient condition for rate fairness. To claim that rates are excessive when markets are competitively structured represents a *reductio ad absurdum* argument.

George Stigler's "capture" theory (i.e., the notion that regulators are at risk of being "captured" by either the industry they regulate or other third parties whose self interests may be at odds with industry) describes well the historical record of insurance regulation. During the early to mid 20th century, insurance rates were typically regulated out of the stated concern that insurers might be motivated to cut prices to unsustainably low levels as a way to acquire market share. If this were the case, then such pricing behavior could trigger insurance insolvencies. The empirical reality, at least during this earlier period of insurance regulation, was that rate regulations were implemented so as to make it possible for insurers to earn excess rates of return by charging excessive rates. In recent years, however, the pendulum has generally swung more toward rate suppression. The "special interests" that benefit from rate suppression include regulatory agencies, lawyers, consultants, and consumer groups.

The economic theory and corresponding empirical evidence pertaining to insurance regulation clearly demonstrates that it cannot possibly be in the public interest to eliminate competition as a factor in rate making. A recently published book entitled "Deregulating Property-Liability Insurance: Restoring Competition and Increasing Market Efficiency" (see AEI-Brookings Joint Center for Regulatory Studies (2002)) notes that property-liability insurance regulation generally makes consumers worse off by limiting availability of coverage, reducing the quality and variety of services available in the market, inhibiting productivity growth, and increasing the volatility of insurance prices paid by consumers.

The Market as Regulator

In a free market economy, capital is allocated to its most highly valued use; therefore, if one state suppresses rates, then companies are free to go elsewhere. Limiting exit

rights (e.g., as has occurred in states such as Massachusetts and New Jersey in response to crises in these states' auto insurance markets) is both unfair and counterproductive, and measures like these do not make insurance any more affordable or available in the long run.

Once the competitive market is eliminated as a regulator, reliance must be placed upon the insurance regulator to "stand in the gap". If the insurance regulator is benevolent and wishes to maximize social welfare, then this individual will recognize that he or she has the very difficult task of mimicking what might otherwise occur in a competitive market environment. However, the empirical evidence generally suggests that regulators are subject to political pressures from interest groups and therefore are not likely to be benevolent central planners. Depending upon the political equilibrium that obtains, this may result in excess profits or losses for the regulated industry. In the current political environment in Texas and many other states, one would expect that this equilibrium will most likely continue to be characterized by the suppression of rates.

In conclusion, removing competition as an objective method for benchmarking whether a rate is fair takes us onto a public policy slippery slope. The economics of such a position are fundamentally unsound. Furthermore, this position has virtually no precedent in the theory and practice of insurance regulation, and it unnecessarily subjects policyholders to the risks of "unintended" consequences. Past experience with insurance regulation suggests that these "unintended" consequences imply that even more availability and affordability problems may be on the horizon.

Insurance Company Earnings

Profitability is perhaps the most confusing issue in the public policy debate on property/casualty insurance. Insurers point out that they pay out billions of dollars more in losses and expenses than they take in each year in premiums: they almost always incur a large underwriting loss (defined as premiums minus losses and expenses). Consumer activists counter that insurers earn billions in investment income on policyholder funds that result in excessive profits. Both sides in this instance are factually correct. Insurers do incur underwriting losses and earn investment income. Neither side gives sufficient attention to the fact that it is the net amount earned by insurers that is relevant. That concept is pivotal, because it underlies both the rationale for and implementation of new insurance regulations in important regulatory jurisdictions across the country.

The first step in understanding the profitability issue is to realize that insurers must come to the market with equity capital, supplied by either stockholders or policyholders. Equity capital allows the company to offer the credible promise that claims will be paid when due. It provides a cushion to cover the eventuality that losses and expenses are higher than expected. As part of the solvency surveillance system, state regulators require that insurers maintain a reasonable amount of equity capital relative to premium writings.

Comparable Risk Standard- Because equity capital has other potential uses besides backing up insurance liabilities, it is available only at a price, known as the cost of capital. Instead of putting funds into an insurance company, suppliers of equity capital can invest in other sectors of the economy. To attract capital into insurance, investors

must receive a rate of return that is comparable to the return they can earn in other sectors of the economy on investments of comparable risk.

The comparable risk standard provides the conceptual underpinnings for insurance rate regulation, and the same general concept applies to public utilities and other regulated industries.

Operating Results for 2015 & 2016 ($ Millions)

TWELVE MONTHS	2016	2015
NET WRITTEN PREMIUMS	440,815	443,460
NET EARNED PREMIUMS	439,083	435,484
INCURRED LOSS & LOSS ADJUSTMENT EXPENSES	298,626	283,846
STATUTORY UNDERWRITING GAINS (LOSSES)	21,454	34,518
POLICYHOLDERS' DIVIDENDS	2,430	3,403
NET UNDERWRITING GAINS (LOSSES)	19,024	31,115
PRETAX OPERATING INCOME	72,672	84,607
NET INVESTMENT INCOME EARNED	54,641	52,309
NET REALIZED CAPITAL GAINS (LOSSES)	8,971	3,524
NET INVESTMENT GAINS	63,612	55,834
NET INCOME (LOSS) AFTER TAXES	61,940	65,777
SURPLUS (CONSOLIDATED)	517,869	486,231
LOSS & LOSS ADJUSTMENT EXPENSE RESERVES	533,409	513,482
COMBINED RATIO, POST-DIVIDENDS (%)	95.6	92.4

FOURTH QUARTER	2016	2015
NET WRITTEN PREMIUMS	103,244	105,904
NET EARNED PREMIUMS	109,795	110,339
INCURRED LOSS & LOSS ADJUSTMENT EXPENSES	79,070	71,580
STATUTORY UNDERWRITING GAINS (LOSSES)	2,140	9,120
POLICYHOLDERS' DIVIDENDS	1,262	2,312
NET UNDERWRITING GAINS (LOSSES)	878	6,808
PRETAX OPERATING INCOME	16,033	22,593
NET INVESTMENT INCOME EARNED	15,126	14,816
NET REALIZED CAPITAL GAINS (LOSSES)	768	2,051
NET INVESTMENT GAINS	15,894	16,867
NET INCOME (LOSS) AFTER TAXES	12,541	19,648
SURPLUS (CONSOLIDATED)	517,869	486,231
LOSS & LOSS ADJUSTMENT EXPENSE RESERVES	533,409	513,482
COMBINED RATIO, POST-DIVIDENDS (%)	100.9	95.0

Although there is little debate about the appropriateness of the comparable risk standard, the measurement of risk and return in insurance is plagued by controversy and serious pitfalls. Economists tend to agree that the appropriate rate of return for regulatory purposes is the market rate of return on equity. In concept, market return is easy to calculate. For example, assume that one invests $100 in a share of stock and sells it one year later for $115, after receiving a dividend of $5. The total amount received is $120 on a total investment of $100, for a return of 20 percent. The same

concept applies in insurance. If investors put $100 million in equity into an insurance company, they expect to receive their investment back at the end of the year along with an adequate rate of return. Of course, expectations are not always realized. The investors may earn more or less than the expected amount, but that risk is one of the primary factors contributing to the need for the fair expected rate of return.

Measuring the fair rate of return in insurance is quite controversial. On one side are consumerists and many state regulators, who argue that the appropriate rate of return is the book return as shown on the company's financial statements. On the other side are most economists and a few regulators, who contend that the market return is the appropriate measure. Book return proponents usually place the cost of capital in insurance somewhere in the 10 to 12 percent range. Market return measures are usually higher, in the 15 to 17 percent range.

Rate of Return

In principle, rate of return analysis is simple. Consider a simplified income statement for a hypothetical company with premiums of $100, losses of $90, expenses of $20, an underwriting profit of ($10), investment income of $30, and a net income (underwriting loss plus investment income) of $20. If the company has $100 in equity capital, the book rate of return is 20 percent.

The reason the company has an underwriting loss, on the average, is that it is earning investment income on policyholder funds. Part of the investment income of $30 is attributable to the investment of the premium of $100. That part of the investment earnings, less an appropriate profit, should be credited to policyholders in the rates. That is what the regulatory and actuarial methodologies designed to reflect investment income in the rates attempt to do. Thus, an important aspect of insurance rate of return analysis is the following principle: an underwriting loss is the expected outcome in most cases because it provides a credit for investment income on policyholder funds. That principle also applies in market rate of return analyses, but the ways of measuring the return differ.

If insurance accounting statements accurately reflected market values of assets and liabilities, the book versus market controversy would not exist because book and market returns would be equivalent. In reality, however, insurance accounting statements are an imperfect proxy for true market values. Consequently, calculating the rate of return on equity by using book data introduces serious errors.

Statutory Accounting Principles (SAP) are a set of accounting rules for insurance companies set forth by the NAIC. They are used to prepare the statutory financial statements of insurance companies. They are the basis for state regulation of insurance company solvency throughout the United States.

Most regulatory applications of the book return methodology are based on statutory accounting data--data compiled in accordance with the regulations set forth by state insurance commissioners. Statutory accounting rules are designed primarily to provide a conservative indication of insurer solvency levels; they do not provide an accurate indication of market values. For example, bonds, which constitute the largest single asset type on insurance company balance sheets, are valued at amortized cost rather than at market values. Loss reserves, the largest single liability item, are valued for

statutory purposes at nominal values rather than at the discounted present values that would be used in a market valuation. There are numerous other statutory accounting anomalies that drive a wedge between statutory rates of return on equity and the market returns that should form the basis for regulatory rate of return analysis.

Another important measurement issue in book rate of return analysis is the measurement of equity capital. The accounting definition of equity is assets minus liabilities: the total value of resources of the firm (assets) minus the amount owed to policyholders and others is the amount available to equity holders. Book equity, computed in that way, is the denominator in the book rate of return measure.

Potential for Error

Regulators and consumerists who use book rate of return analysis in insurance invariably make significant errors in measuring both book income and equity. As a result, book rate of return measures are virtually meaningless. Unfortunately, such measures have been used to set regulatory policy in important jurisdictions such as California, although appropriate market value techniques are readily available.

Regulatory book return analyses also usually ignore unrealized capital gains. Insurers and other investors purchase stocks with the expectation of earning a rate of return that includes both dividends and capital gains. The dividend return alone would not be adequate to induce investors to buy stocks, and no one outside the insurance regulatory community seriously advances a dividends-only theory of stock returns. Nevertheless, the approach used by most insurance regulators ignores unrealized capital gains.

Returns- A mistake sometimes made by insurance regulators is a failure to recognize the difference between expected returns and realized returns. Investors buy stocks with the expectation of earning a rate of return commensurate with the risk borne. For example, the investor might expect a rate of return of 15 percent on a stock of average risk. After holding the stock for some period of time, however, the investor may find that the actual rate of return has been less than 15 percent, say 5 percent. Although the investor will obviously be disappointed that his expectation was not borne out in that particular case, achieving a 5 percent realized return does not mean that the true expected return on the stock was 5 percent. Stocks are risky, and expectations are not always realized. The expected return on the stock during the coming period will be based on the company's prospects and the anticipated risk and cannot be equated with the realized return of the prior period.

The same analysis applies to insurance rate of return analysis. When the insurance industry goes through a period of low returns such as during 1984 and 1985, realized returns on both a book and a market value basis are very low. For example, the accounting return on equity in property-liability insurance was minus 1 percent in 1984. It should be obvious that the realization of a minus 1 percent return in 1984 does not imply that the expected rate of return on insurance stocks is minus 1 percent. No investor would buy a stock with an anticipated negative rate of return. Although regulators would not set the cost of capital in insurance at minus 1 percent, they regularly commit logical errors regarding realized versus expected returns by arbitrarily selecting historical time periods to compute book rates of return on equity and then using those returns as measures of expected returns in the future. Even if there were no difference between book and market rates of return on equity, it would be inappropriate to, say, use book return data from the period from 1981 to 1990 to estimate the

appropriate rate of return on equity in insurance. That period was one of increasing risk and low returns in the insurance industry. Investors would not knowingly put their funds into a risky business such as insurance and expect to earn such low rates of return.

Insurance premiums should incorporate rates of return on equity adequate to attract capital into the industry on a prospective basis. If lower returns are used, the market will be destabilized, and price and availability problems will worsen. The inappropriate use of book rates of return in insurance regulation becomes a self-fulfilling prophecy. The appropriate way to measure the cost of capital in insurance is to use a prospective, market-value-based method. Such methods are discussed in textbooks on regulatory finance. Unfortunately, only a few regulatory jurisdictions are currently using such methods.

CFA Observation

Property-casualty insurers are getting rich by “methodically overcharging consumers,” reducing coverage, underpaying claims and having taxpayers pay some of the tab for risks that carriers should cover, the Consumer Federation of America (CFA) habitually charges in its rantings against the insurance industry.
Using a number of common measures of financial health, CFA studies found that despite the fact “balance sheets for property-casualty insurers are in better condition overall than at any time in history,” with record profits and low losses in recent years, prices remain too high for too many buyers.

Insurers, according to CFA’s analysis, have succeeded at being insulated from risk through the use of reinsurance. It indicated that profits were unfairly boosted through anti-concurrent causation clauses, caps on rebuilding costs, limits on compensation for bringing a building up to code, and through unreasonable price hikes. Taxpayer subsidies have also reduced insurer costs, citing the Terrorism Risk Insurance Act. The CFA study estimates that insurance companies have received a subsidy of about $4 billion to date because they do not have to pay premiums for the terrorism reinsurance provided by the federal government.

Industry Reaction

Insurance leaders defend the industry and counter allegations of price-gouging and market misconduct by CFA- that the study criticizes private auto and home insurers but actually includes data from government-run insurers that sell, among other coverage, workers’ comp insurance, thereby artificially inflating its figures for industry-retained earnings or policyholder surplus. The CFA compounds this error by double-counting tens of billions of dollars in surplus on the books of individual insurers. Consequently, the CFA overstates the industry’s claims paying capacity by approximately $160 billion.

An improved capital position will help insurers pay future large-scale disaster losses, as well as meet higher capital requirements imposed on them by rating agencies in the wake of storms like Hurricane Katrina—which produced insured losses of $41 billion.

The insurance industry also challenged the notion that insurers were paying less to consumers.
“It is curious,” says Franklin Nutter, longtime president of the Reinsurance Association of America, “that the CFA report would recommend more state government reinsurance funds, like Florida's, yet soundly criticize government and taxpayer-backed subsidies for

insurers, upon which the Florida fund is based. What is the logic of more state taxpayer-funded reinsurance to insurers in the context of criticizing insurer profits?"
Calls for "actuarially" sound state reinsurance, per the CFA report, "defy experience and political logic," according to Mr. Nutter.

Consumerist View

The consumerist view is that insurance claim costs have inflated rapidly owing to poor claims settlement practices by insurers. The usual argument is that insurers just settle claims and then pass the costs along to the buyer. The contention is that such a cost-plus pricing scheme provides no incentives for insurers to settle claims conscientiously. Although plausible on the surface, that argument does not stand up to rigorous examination. In fact, insurance premiums are set before claims are paid. Insurers cannot go back to the policyholders for additional premium payments if claims are higher than expected. If insurers can save $1 in claim payments, that $1 goes directly into profits. Conversely, paying excessive claims means a direct reduction in profits. Thus, insurers have every incentive to minimize claim payments.

The real problem is not insurer claim settlement procedures, but rather the rapid inflation in the costs of insured goods and services. Part of the reason for that is the poorly designed automobile insurance compensation system. Insurance compensation in most states is handled under the tort system, which has been shown to lead to higher claims inflation than well-designed no-fault plans. Several key states have no-fault insurance laws with low dollar-denominated thresholds for filing pain and suffering claims. Dollar-denominated no-fault thresholds have been shown to be associated with relatively high claim cost inflation. To reduce the inflation rate, states should adopt no-fault laws with strict verbal thresholds that remove small liability claims from the system. Adopting programs to reduce insurance fraud, as suggested by Herbert Weisberg and Richard Derrig, also provides a promising way to control claim costs.

In a high inflation environment such as the 1980s, rate regulation imposes an additional cost on insurers. By delaying rate changes and using inaccurate ratemaking methods and erroneous cost of capital estimates, regulators unfairly penalize insurance company equity owners. The difference between the Standard & Poor's insurance market index returns and the NYSE returns during the 1980s provides an approximate indicator of the maximum amount of the penalty. The difference between the NYSE return and the average of the two insurance index returns for the 1981 to 1990 period was about 4 percent. If one-fourth of that was due to regulation, the loss to equity holders would have been about $1 billion per year during the 1980s. The loss during the late 1980s would have been even larger.

Unless there is a change in the nature of insurance regulation, the stock market will build the regulatory penalty into its expectations regarding the performance of insurance stocks. Stock prices will fall until the anticipated earnings, when divided by the lower equity value, provide a rate of return commensurate with the risk of operating an insurance company. That will impose an additional penalty on insurance equity owners and may also have long-range effects on the ability of the insurance industry to raise new equity capital.

Industry data shows the number of property-liability insurance company insolvencies by year during the 1980s. During the crisis years of 1984 to 1986, the number of failures

averaged about twenty-four per year. As insurance profitability increased, the number of failures dropped to nineteen in 1987 and 1988. But the situation deteriorated from 1989 to 1991: forty-two insurers failed in 1989, thirty-two in 1990, and twenty-seven in 1991. Those statistics provided clear danger signals about the property-liability insurance market. Earnings were excessively low and an inordinate number of firms were failing. More restrictive rate regulation can only exacerbate such a problem.

DISCUSSION OF STATE REGULATION OF AUTO INSURANCE

Testimony before the Subcommittee on Oversight and Investigations of the House Committee on Financial Services

Robert E. Litan

August 2001

I am pleased to appear before you today to discuss state regulation of auto insurance. As it turns out, the AEI-Brookings Joint Center on Regulatory Studies will release a major study of this subject in several months that was overseen by Professor J. David Cummins of the University of Pennsylvania. If the Subcommittee holds further hearings on this subject, I encourage it to seek testimony from Professor Cummins and others who participated in the study. In their absence, I will report some of its main findings.

Background and Summary of Testimony

The auto insurance industry currently collects about $120 billion in annual premiums, accounting for roughly 40 percent of overall property-casualty insurance premiums. As the Subcommittee is well aware, approximately half of the states have some form of prior approval over auto insurance rates. The AEI-Brookings insurance study contains both a statistical analysis of insurance in all states as well as case studies of insurance regulation and deregulation in selected states, all authored by leading scholars in the insurance field.

The bottom line of all this analysis is very simple to state. Auto insurance is a competitive industry. It certainly is not characterized by monopoly, the traditional basis for price and entry regulation. Nor is the product so complicated that it requires government to set rates to protect consumers. Indeed, because it is what I would call a “plain vanilla” financial product—in large part because insurance policies have been standardized through forms regulation—consumers are easily able to use the Internet to shop for auto (and other types of) insurance. Not all lines of insurance, however, benefit from forms regulation. One of the conclusions from the AEI-Brookings study is that the regulation of forms for commercial insurance sold to medium and large companies—or sophisticated customers who often purchase insurance in a negotiated setting—slows innovation in that segment of insurance.

In facilitating price comparisons, the Net is making and will continue to make auto insurance—and the financial services industry more broadly—even more competitive. In short, from an economic perspective, there is no basis for regulating rates. Furthermore, there is no evidence from either the AEI-Brookings study or in the

academic literature of which I am aware indicating that either prices or profits in states that rely on markets to set rates—rather than regulation—are excessive.

Experience Under Rate Regulation

What about the states that do regulate insurance? As part of the AEI-Brookings study, Professor John Worrall of Rutgers University examined the experience of New Jersey, while Professors Sharon Tennyson of Cornell and Mary Weiss and Laureen Regan of Temple University studied Massachusetts. In both of these states auto insurance rates are heavily regulated. The authors of these state case studies reached similar conclusions. In both states, rates have been suppressed below levels that would obtain in a freely competitive environment. On the surface, this may look like a good deal for consumers, but closer study reveals deeper problems. For one thing, rate suppression not only discourages entry by new insurers, but encourages existing insurers to leave—which in fact has occurred in both New Jersey and Massachusetts. Meanwhile, many more of those insurers who remain operate only in a single state (either as standalone companies or subsidiaries of national firms that are formed to limit financial exposures to the parent companies). In Massachusetts, for example, in 1982 all top ten auto insurers in the state were national firms, but in 1998 this was true for only 3 of the top 10. A similar pattern has existed in New Jersey: five of the nation's top 10 auto insurers do not do business in the state. The net result from restrictive rate regulation is less choice for consumers among less diversified firms. Professor Cummins has documented elsewhere (with colleagues) that the replacement of national firms with smaller regional and single-state firms drives up the average costs of providing insurance (since there are economies of scale in insurance). Smaller insurers also tend to have higher insolvency probabilities than larger firms.

Less choice in regulated states manifests itself in another way as well. In his statistical analysis of insurance rates across states, Professor Scott Harrington of the University of South Carolina confirms that insurers in regulated states are less willing to voluntarily underwrite insurance, leaving a significantly higher fraction of consumers to buy their insurance in residual markets (where most states assign policy holders to insurers based on their shares in the primary or voluntary market). Again, Massachusetts illustrates the problem: roughly half of the state's drivers were forced to buy insurance in the residual market during the 1980s (reaching a high of 72 percent in 1989). The Massachusetts case study authors report improvements in the 1990s due to some reforms, but also observe that declining claims costs also made helpful contributions (as they did elsewhere, as I discuss later).

Furthermore, regulated rates are often distorted by political pressures in order to subsidize certain classes of drivers. The AEI-Brookings study found evidence that not only does regulation often suppress average rates, but distorts rates between different classes of drivers – keeping rates for high-risk drivers artificially low, while raising rates for lower-risk drivers. This cross-subsidization is accomplished directly through limits on rates in certain classifications or by channeling subsidies to higher risk drivers by keeping rates low in the residual market. The Massachusetts case study, for example, found that some high risk drivers receive subsidies as high as 60 percent, requiring some lower risk drivers to pay 11 percent more in premiums than they would pay in a competitive environment. Similarly, the authors of the South Carolina case study discussed shortly report that the residua l market in that state ballooned under regulation to 42 percent of consumers in 1992, requiring significant subsidies from

drivers in the voluntary market. By 1999, the state residual market facility had a cumulative deficit of $2.4 billion. Subsidizing high-risk drivers is hardly a desirable social or economic policy because it can lead to higher accident rates and loss costs (due to more ownership and driving by higher risk drivers).

What about the experience in California, which adopted one of the nation's best known regulatory regimes under Proposition 103 enacted in 1988? Professors Dwight Jaffee of University of California at Berkeley and Thomas Russell of Santa Clara University conclude that the harmful effects of regulation found by the authors of the Massachusetts and New Jersey case studies—exit of insurers, rising residual market shares, and rate suppression—did not occur in California. The major reason for this different result, however, is that in both absolute and relative terms, claims costs in California—especially liability costs—fell dramatically after Proposition 103 was implemented. Notably, between 1990 and 1998, the number of collisions per insured car fell by 51 percent in the state, far more than the 15 percent decline in the U.S. as a whole.

Why did costs fall? Jaffee and Russell conclude that one reason was that Proposition 103 mandated a 20% "good driver" discount. But the more important factors, taken together, were more aggressive enforcement of seat belt and drunk driving laws, as well as the elimination in 1988 of third party lawsuits in the state against insurers for bad faith. The authors point to the fact that California seat belt usage rate is now 89 percent, 20 percentage points higher than the national average of 69 percent. The elimination of third party bad faith lawsuits resulted from the California Supreme Court's decision in *Moradi-Shalal v. Fireman's Fund*.

Phillip O'Connor, former Insurance Commissioner of Illinois, has also recently testified to the fact that the most publicized part of Proposition 103—the 20 percent rate rollback—was never fully implemented because of adverse court rulings

(Testimony of Philip R. O'Connor before the Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises of the House Financial Services Committee, June 21, 2001).

In short, the California experience demonstrates that rate regulation need not produce deleterious results if other good things happen at the same time and if the regulatory regime is not that binding. But if there are upward pressures on costs, then almost by definition, rate regulation will result in rate suppression and the various negative consequences that flow from that outcome.

Experience Under Deregulation

In 1999, South Carolina substantially deregulated auto insurance rates (under legislation enacted in 1997) and began phasing out its subsidies. Professors Robert Klein of Georgia State University and his colleagues Martin Grace and Richard Phillips examined the limited data available since then and found some striking results. Before deregulation, South Carolina had an average of 59 insurers serving consumers, compared to almost 200 insurers in other Southeastern states. After deregulation, the number of insurers serving South Carolina roughly doubled. At the same time, the residual market facility in South Carolina has virtually disappeared—down to about 50,000 consumers, from a high of one million—because insurers now can charge rates

based on risk in the voluntary market. Overall premiums have fallen, in part because claims costs have fallen (a result which may have been influenced by the increased use of risk based pricing).

Auto insurance has been deregulated in Illinois for over three decades (and indeed, the state is the only one in the nation without a rating law of any kind). Even states that do not require prior approval typically allow the insurance commissioner to disapprove filed rates or to require varying levels of documentation of rates.

In his study of this experience for the AEI-Brookings study, Professor Stephen D'Arcy of the University of Illinois finds that premiums in Illinois are in line with losses, that they change more frequently and in smaller increments than they do than in regulated states (as one would expect in a competitive market), and that the residual market barely exists in the state (at less than 1 percent of the market). Meanwhile, Illinois consumers have roughly twice the number of auto insurers (129) to choose from than those in New Jersey (67), where rates are tightly regulated. In sum, the Illinois experience is consistent with that of other states that have so-called competitive rating laws— laws that do not require prior approval—and the state accomplishes this result without having to divert scarce regulatory resources into monitoring rates (but can focus on solvency and market misconduct instead).

The experience from other industries where prices and entry have been deregulated also demonstrates that deregulation, by unleashing the forces of competition, helps drive out inefficiencies and thus leads to higher productivity and lower costs. See Clifford D. Winston, "Economic Deregulation: Days of Reckoning for Microeconomists," Journal of Economic Literature, 1993, Vol. 31, pp. 1263-1289.

In fact, there is evidence of significant inefficiency in the insurance industry. In another recent study, Professor Cummins and colleagues estimated that on average property-liability insurance firms could reduce their expenses by an extraordinary 32 percent if they were all highly efficient. Rate deregulation in the states where it still exists would help unleash competitive forces that would help realize these cost savings.

Conclusion

The economic case for eliminating rate regulation in auto insurance is overwhelming and compelling. Virtually all economists who have studied the industry over the last several decades have reached this conclusion. The obvious policy implication: auto insurance—indeed, all lines of insurance—should be governed by the market, just like other industries in our economy. Moreover, like other industries, insurance ought to be subject to the antitrust laws. There are several roles for regulation, however: to monitor insurer solvency (so that consumers will be paid when covered events occur), to protect consumers from unscrupulous practices, and to help standardize forms for personal lines and to small businesses (so that consumers can easily compare prices). Eliminating rate regulation would free up resources within insurance departments to pursue each of these functions (especially solvency and misconduct regulation) more vigorously.

Chapter 4 Auto Policy Analysis

An auto policy can be separated into three major components:

1. the declarations page,
2. the insuring agreement, and
3. the conditions of the policy.

Declarations Page

Declarations page- This is where the policyowner's name will be stated along with the autos covered, the time period of coverage (January first through April first, for example) and the premium amount. Also listed is the description of the coverage provided (from the six components previously reviewed) and the dollar limits.

Even if the consumer doesn't read anything else in their policy, they need to read this page.

The Insuring Agreement

Insuring agreement- This is the main part of the policy. Policy terms (or definitions) will be stated. Perhaps most importantly, the benefits given in exchange for the premium will be stated. Who is covered under the policy will also be stated. This can be important information if the policyowner is in the habit of loaning out his or her car. Sometimes this may tie in to the listed definitions or policy terms. For example, a "relative" may be defined as any person who is related to those listed on the declarations page as named insureds **and** *living in the same household.*

Exclusions- These will also be listed. An **exclusion** is a provision in the policy which denies coverage for specified perils, persons, properties or locations.

The third part in an auto policy, the **conditions of the policy,** describes the policyowner's responsibilities when a claim occurs. It may state how much time is allowed to report the claim and the types of proof of loss that will be required by the insurance company.

This portion of the contract will also generally list the conditions under which a policy may be canceled. The policyholder may cancel their coverage at any time, but the insurer must follow set procedures. Certainly nonpayment of premium is an obvious reason for which the insurance company may cancel the policy. They may generally also cancel the policy if the policyholder deliberately concealed or misrepresented any facts when applying for the coverage. If this were the case, the company could refuse to pay any losses that occurred.

Limits of Liability

State law requires people who drive to be able to pay for the automobile accidents they cause. Most drivers do this by buying automobile liability insurance. Liability insurance pays to repair or replace the other driver's car and pays other people's medical expenses. It does not pay to repair or replace the car or for the insured's injuries. A

motorist must have at least the minimum amount of liability coverage required by the state's financial responsibility law.

State	Required Insurance				Minimum Liability Limits[a]
	BI & PD Liab	PIP	UM	UIM	
Alabama	X				20/40/10
Alaska	X				50/100/25
Arizona	X				15/30/10
Arkansas	X	X			25/50/25
California	X				15/30/5[b]
Colorado	X				25/50/15
Connecticut	X		X	X	20/40/10
Delaware	X	X			15/30/10
Dist of Columbia	X		X		25/50/10
Florida	X	X			10/20/10[c]
Georgia	X				25/50/25
Hawaii	X	X			20/40/10
Idaho	X				25/50/15
Illinois	X		X		20/40/15
Indiana	X				25/50/10
Iowa	X				20/40/15
Kansas	X	X	X		25/50/10
Kentucky	X	X			25/50/10
Louisiana	X				10/20/10
Maine	X		X	X	50/100/25[d]
Maryland	X	X	X[e]		20/40/15
Massachusetts	X	X	X		20/40/5
Michigan	X	X			20/40/10
Minnesota	X	X	X	X	30/60/10
Mississippi	X				25/50/25
Missouri	X		X		25/50/10
Montana	X				25/50/10
Nebraska	X				25/50/25
Nevada	X				15/30/10
New Hampshire Financial Responsibility only			X		25/50/25
New Jersey	X	X	X		15/30/5[f]
New Mexico	X				25/50/10
New York	X	X	X		25/50/10[g]
North Carolina	X				30/60/25
North Dakota	X	X	X		25/50/25
Ohio	X				12.5/25/7.5
Oklahoma	X				25/50/10
Oregon	X	X	X		25/50/10
Pennsylvania	X	X			15/30/5
Rhode Island	X		X		25/50/25
South Carolina	X		X		25/50/25
South Dakota	X		X		25/50/25
Tennessee	X				25/50/10[c]
Texas	X				25/50/25*
Utah	X	X			25/50/15[c]
Vermont	X		X	X	25/50/10
Virginia	X		X		25/50/20
Washington	X				25/50/10
West Virginia	X		X		20/40/10
Wisconsin Financial Responsibility only			X		25/50/10
Wyoming	X				25/50/20

[a]The first two numbers refer to bodily injury liability limits and the third number to property liability. 20.40.10 for example, means coverage up to $40,000 for all persons injured in an accident, subject to a limit if $20,000 for each one individual, and $10,000 coverage for property damage.
[b]Low-cost policy limits for low-income drivers in the California Automobile Assigned Risk Plan are 10/20/3.
[c]Instead of policy limits, policyholders can satisfy the requirement with a combined single limit policy. Amounts vary by state.
[d]In addition, policyholders must also carry at least $1,000 for medical payments.
[e]May be waived for the policyholder but is compulsory for passengers.
[f]Basic policy (optional) limits are 10/10/5. Uninsured and underinsured motorist coverage not available under the basic policy but uninsured motorist coverage is required under the standard policy.
[g]In addition, policyholders must have 50/100 for wrongful death coverage.
*Minimum coverage will increase to 30.60.30 on 01/01/2011.
Source: State departments of insurance

It is probably not surprising that the most serious legal risk in driving is that of injuring or killing another person. Liability is, as a result, the most expensive type of coverage. Many states require by law that liability insurance be carried. Generally, it is considered wise to buy higher liability insurance limits than the law requires since state mandated requirements are often too low to give adequate protection.

If the policyowner or any other driver covered under their policy, is found to be responsible for an accident that injures another person, they may be held liable for his or her medical bills (hospital and doctors), rehabilitative care and therapy, long-term nursing care and perhaps even the injured person's lost wages. Often there may be additional cash rewards given for pain and suffering. Consumer publications often recommend at least $100,000 of bodily injury protection per person and $300,000 per accident. The cost of such protection will depend upon the insurance company and the amount of risk the insured represents. When a car is financed, the lender requires comprehensive and collision insurance as part of the loan agreement.

The chart shows minimum limits for auto liability insurance in the various states. The first number refers to liability limits for bodily injury for any one person, the second to limits for all persons injured, and the third refers to property damage liability limits. For example, 20/40/10 means coverage up to $40,000 for all persons injured in an accident, subject to a limit of $20,000 for one individual and $10,000 coverage for property damage.

Say that for the reader’s particular state, the current minimum liability limits are $20,000 for each injured person, up to a total of $40,000 per accident, and $15,000 for property damage per accident. This basic coverage is called “20/40/15” coverage. Because of car prices and the high cost of medical care, the minimum amounts might not be enough if the motorists causes an accident. If liability limits are too low to pay for all of the other driver’s costs, the driver may sue to collect the difference. For optimum financial protection, it is always worthwhile to consider buying more than the basic limits.

Proof of Financial Responsibility

In many states, when an auto policy is purchased, the insurance company will send a proof-of-insurance card. This card is produced to show proof of insurance when-

- are asked for it by a law enforcement officer
- have an accident
- register the car or renew its registration
- obtain or renew a driver's license
- get the car inspected.

There are severe penalties for violating the state's financial responsibility laws. For example, in Texas for example, a first conviction will result in a fine between $175 and $350. Subsequent convictions could result in fines of $350 to $1,000, suspension of driver's license, and impoundment of the automobile.

AUTO INSURANCE COVERAGES

Automobile insurance pays for damages, injuries, and other losses specifically covered by the policy.

Many insurance companies use a standardized policy form that offers several types of coverages. Companies may sell alternative policies if the Department of Insurance (TDI) approves them in advance. Policies should be read carefully, as coverages can vary by policy and company. Pay special attention to the exclusions section, which lists the things that the policy does not cover.

The front page of the policy is called the declarations, or "dec," page. It shows the exact name of the insurance company, the policy number, and the amount of each coverage and deductibles. The following summarizes the eight coverages in the Texas Personal Automobile Policy. Other coverages and policy terms may differ from these, this summary can help understand various auto insurance coverages and the way they work.

1. **Liability Coverage (Basic liability coverage meets the state's financial responsibility requirement.)**

   Pays: Other people's expenses for accidents caused by drivers covered by the policy, up to the policy's dollar limits. These may include the other person's

   - medical and funeral costs, lost wages, and compensation for pain and suffering
   - car repair or replacement costs
   - auto rental while the other driver's car is being repaired
   - punitive damages awarded by a court.

   Liability insurance also pays attorney fees if someone sues because of the accident and bail up to $250 if arrested.

   Covers: Insured and his/her family members. Other people driving the car with the insured's permission might be covered. Insured and family members might be covered when driving someone else's automobile – including a rental car. This does not apply to a car that the insured does not own but has regular access to, such as a company car. Family members attending school away from

home might be covered, as well as a spouse living elsewhere during a marital separation.

Note: Some policies do not cover other people, including family members, unless they're specifically named in the policy. The policy's declarations page should list the names of all of the people covered by the policy.

Who qualifies as a family member? Generally, a "family member" is anyone living in the insured's home related to him/her by blood, marriage, or adoption, including the spouse, children, in-laws, adopted children, wards, and foster children.

2. **Medical Payments Coverage**

Pays: Medical and funeral bills resulting from accidents, including those in which the other person is a pedestrian or bicyclist.

Covers: Insured, family members, and passengers in the car, regardless of who caused the accident.

3. **Personal Injury Protection (PIP) Coverage**

Pays: Same as medical payments coverage, plus 80 percent of lost income and the cost of hiring a caregiver for an injured person.

Covers: Insured, family members, and passengers in the car, regardless of who caused the accident.

In many states, an insurance company must offer at least $2,500 in PIP, but higher amounts can be purchased. If PIP is not desired, it must be rejected in writing.

4. **Uninsured/Underinsured Motorist (UM/UIM) Coverage**

Pays: The insured's expenses from an accident caused by an uninsured motorist or a motorist who did not have enough insurance to cover bills, up to the insured's policy dollar limits. Also pays for accidents caused by a hit-and-run driver if the accident is reported promptly to police.

- Bodily injury UM/UIM pays without deductibles for medical bills, lost wages, pain and suffering, disfigurement, and permanent or partial disability.
- Property damage UM/UIM pays for auto repairs, a rental car, and damage to items in the car. There is frequently an automatic $250 deductible. This means the insured must pay the first $250 of the repairs.

Covers: The insured, family members, passengers in the car, and others driving the insured's car with permission.

Insurers must offer UM/UIM coverage. If the insured does not want it, rejection must be in writing.

5. **Collision (Damage to Insured's Car) Coverage**

   Pays: The cost of repairing or replacing the insured's car after an accident. Payment is limited to the car's actual cash value, minus the deductible. Actual cash value is the market value of a car like the one covered by insurance without damages.

6. **Comprehensive (Physical Damage Other than Collision) Coverage**

   Pays: The cost of replacing or repairing a motorist's car if it is stolen or damaged by fire, vandalism, hail, or a cause other than collision. Comprehensive coverage also pays for a rental car or other temporary transportation if the car is stolen. A policy will not pay for an auto theft unless it is reported to the police. Payment is limited to the car's actual cash value, minus deductible.

   If money is still owed money on a car note, the lender will require the borrower to have collision and comprehensive coverage.

7. **Towing and Labor Coverage**

   Pays: Towing charges when an insured's car cannot be driven. Also pays labor charges, such as changing a tire, at the location where the car became immobile.

8. **Rental Reimbursement Coverage**

   Pays: A set daily amount for a rental car if the car is stolen or is being repaired because of damage covered by the insurance policy.

Coverage for Stereo Equipment

The policy will not pay for CDs, tapes, cell phones, citizen band radios, or stereo equipment not permanently installed in the car. However, endorsements can be purchased for the policy that provide separate coverage for these items for an additional premium.

Coverage of New or Additional Automobiles

If an insured buys another car, the policy might automatically cover it with certain limitations. Insureds must read the policy to know whether it automatically covers an additional or replacement car.

In general, an additional car usually has the same coverage as the car on the policy with the broadest coverage. For example, if Mr. Jones has two cars – one with liability coverage only and one with liability, collision, and comprehensive coverages – and Mr. Jones buys a third car, the third car will automatically have liability, collision, and comprehensive coverage. A replacement car usually has the same coverage as the car it replaced. For example, if someone trades in an older car that only had liability coverage, the new car will automatically have only liability coverage.

Motorists must be sure to tell their insurance company as soon as possible that they have added or replaced a car and which coverages are desired. Coverage on the additional or replacement car can terminate if the insured waits longer than the number of days specified in the policy to notify the insurance company.

Coverage for Rental Cars

Auto rental agencies offer collision damage waivers and liability policies. The collision damage waiver is not insurance. It is an agreement that the rental company will waive its right, with certain exceptions, to recover from the renter the cost of damage to the car.

If a motorist has auto insurance, the policy may already cover damage to a rental car. The coverage limit, however, might be less than the value of a rental car. Reading the policy to know what's covered and the coverage limits is important. If the coverage limit is too low, one might consider increasing it. More in premium might be paid, but it might be cheaper than buying additional coverage through the rental agency, especially if cars are rented often. For someone who does not own a car, but borrow or rent cars often, a non-owner liability policy can be purchased. A non-owner policy pays for damages and injuries caused when driving a borrowed or rented car.

Driving in Other States, Canada, and Mexico

For every state, U.S. automobile insurance policies usually meet the financial responsibility requirements of other U.S. states and Canada. Mexico, however, does not recognize U.S. auto liability policies.

Mexico does not require drivers to have automobile liability insurance. Mexican authorities can hold drivers criminally and financially responsible for any auto accidents they cause. If a motorist is in an accident that results in an injury, police may detain the motorists until they determine who is at fault. One must show that either they have insurance recognized by the Mexican government or the financial ability to pay any judgment against them.

Some U.S. companies provide a free endorsement extending the policy's coverage to infrequent trips of up to 10 days and as far as 25 miles into Mexico. Coverage can be purchased for longer stays, but it is usually valid only within 25 miles of the border. In addition, these endorsements might not meet Mexican legal requirements. Mexican liability can be purchased from agents who specialize in it. A check can be made of the phone book or internet for listings of insurance agents who specialize in auto insurance for travel in Mexico. A local agent also might be able to help find coverage with a U.S.-licensed Mexican company. A driver may be able to buy a Mexico "tourist" endorsement for his or her U.S. policy. This endorsement extends the insured's liability coverage to pay costs exceeding a Mexican liability policy's limits. It covers trips of any distance and any length of time. Agent should be able to determine which endorsements their insurance company offers.

Auto Insurance for Young Drivers

Young drivers must comply with the state's financial responsibility laws. Parents can usually add their children to their auto policy to satisfy the financial responsibility

requirements. Adding a young driver to a parents' policy can be expensive, but it's cheaper than buying a separate auto policy.

Some policies require all drivers to be named on the policy for coverage to apply. Therefore, it's important that all family members be listed on the policy as soon as they reach driving age. If all of the drivers in the family are not listed on the policy and the company learns about them later – because of an accident claim, for instance – the company will bill for the extra premium that should have been paid and could deny the claim and coverage.

If an insured has children attending school away from home, they must tell the insurance company. Because companies base rates on where a car is usually located, it might need to adjust the premium. If the school is in another state, check on the financial responsibility laws in that state to make sure the appropriate coverages are in place.

Generally, if a teenager is the principal driver of a particular automobile, the company will base the teen's rate on that car. Otherwise, the company will assign the teenage driver to the car (usually the most expensive) in the household that produces the highest rate.

Removing Children from the Policy

An insured may want to remove his or her children from the policy when they are no longer living at home. Proof probably must be provided to the insurance company that the child has moved. Documents that can be used include a driver's license, lease agreement, or utility receipts to show that the child has a separate address.

It is probably not a good idea to remove children from the policy if they are attending school away from home. It is risky to drop coverage if the teenager might occasionally drive at school or when home on visits. Many insurance companies will require that students be kept on the policy, even if the insured would like to remove them.

Sometimes the insured can remove a teenage driver from the policy by buying a non-owner policy. This usually is not a good idea, however. A non-owner policy only provides liability coverage for someone driving a vehicle that he or she does not own. If the teenager has an accident while driving the insured's car, neither the insured's policy nor the non-owner policy will pay to repair or replace the car of the insured. The rates for a non-owner policy will likely cost more than leaving the teen on the insured's policy.

Saving Money on Insurance for Young Drivers

Some insurance companies give a discount for teenagers who complete a state-approved driver education course. Drivers taught by their parents may also be eligible for the discount if the parent used such an approved course. Some companies offer discounts to young drivers who make good grades in school or who belong to certain youth groups.

Auto Insurance for 'High Risk' Drivers

Insurance companies will often check motor vehicle records for an applicant's driving history and credit reports their financial history before writing or renewing a policy. Owning a car built for speed also can label someone as high risk. Many companies use

the Comprehensive Loss Underwriting Exchange (CLUE) to learn an applicant's insurance claims history. If the company based its decision to deny, cancel, or non-renew a motorist even partly on a CLUE report, the applicant can get a free copy by calling the *ChoicePoint Consumer Center* or by visiting the ChoicePoint website

1-800-456-6004 www.choicetrust.com/index2.htm

Before calling, the insured should get the CLUE reference number from the insurance company. Using the reference number will speed the process and ensure a request for the right report.

High-Risk Driver Options

If a driver is having trouble finding insurance because of tickets, accidents, or poor credit, He or she should keep shopping. Each company has its own guidelines for deciding whether to insure people. Several major insurer groups write coverage for high-risk drivers through one of their member companies.

Every auto insurer that does business in a particular state must participate in the state's assigned-risk pool -- it's a way for a state to make sure there's always an avenue for buying auto insurance in order to reduce the number of uninsured drivers. The amount of business a company does in the state determines how many drivers from the pool it must insure. Drivers who fall into the assigned-risk pool are assigned randomly to a company. If the driver contacts the insurance agent and tells the agent he or she was turned down two or three times (depending on the state), the agent will have the driver fill out a form to apply for insurance from the assigned-risk pool. Generally, the driver does not need to supply photocopies of the denials of coverage, but instead will usually need to certify in writing that the other companies have turned down the driver.

Drivers may be able to get basic liability coverage through the state insurance pool. Take for example the Texas Auto Insurance Plan Association (TAIPA). It only provides the basic liability insurance required by Texas law. It doesn't provide collision or comprehensive coverage or higher liability limits than the law requires. A driver can add personal injury protection (the minimum limit is $2,500) and uninsured/underinsured motorist coverage. TAIPA coverage costs more than most companies charge. TAIPA policyholders pay additional premiums, called surcharges, for traffic convictions. They also pay higher surcharges than other drivers pay for accidents. TDI rules encourage insurance companies to take policyholders out of TAIPA and insure them at lower rates after a year without tickets or accidents. The rules also require companies to offer cheaper "voluntary" policies to their TAIPA policyholders who have gone three years without tickets or accidents. To get TAIPA coverage, motorists apply with a licensed insurance agent. Only agents specifically certified by TAIPA may sell TAIPA policies. An agent who quotes a premium higher than TAIPA's must tell the applicant about the availability of TAIPA if he or she was previously uninsured and had no more than one accident and one ticket in the previous three years

Rates- High Risk

Rates will not vary among companies insuring assigned-risk drivers but, rather, rates will be determined by the extent of the driver's on-road mistakes. Just as in the voluntary insurance market, information such as where the driver lives and his or her driving record *will* affect the premium. This factor alone makes it worth it to keep a motorist's driving record as clean as possible, since someone with six speeding tickets

will pay less than someone with six speeding tickets who also has caused three accidents.

Typically, drivers who fall into the assigned-risk pool don't have any options as to the amount of coverage they can buy. In most states, they can only buy the minimum amount of coverage that's required by state law.

Cycle in the assigned-risk pool

After a driver enters an assigned-risk pool, the assigned insurance company must keep the driver for three years. At the end of that period, the company has the choice of keeping the driver as a customer or not renewing the policy. Even if the insurance company doesn't renew the policy after the record has been kept clean and with sent in premium payments on time, the motorist should be able to find another insurance company willing to issue a policy. During the three years in the assigned-risk penalty box, it is in the motorist's own best interest to keep playing the field by shopping for a company that will insure him or her at a lower cost. As time passes without any driving accidents or citations, the chances of getting insurance on the open market become greater.

AUTO ACCIDENTS, GENERALLY

A car accident is a road traffic incident which usually involves at least one vehicle being in collision with, either another vehicle, another road user, or a stationary roadside object, and which may result in injury or property damage. Road crashes, causing death, injury, and damage have always happened. Irish scientist Mary Ward died on 31st August 1869 when she fell out of her cousins' steam car and was run over. She is believed to have been the world's first motor vehicle accident victim. Road incidents result in the deaths of an estimated 1.2 million people worldwide each year, and injure about forty times this number (World Health Organization, 2004).

Many jurisdictions require the collection and reporting of road traffic incident statistics. Such data enables figures for deaths, personal injuries, and possibly property damage to be produced, and correlated against a range of circumstances. Analysis of this data may allow incident clusters and incident causes to be identified.

A study using British and American crash reports as data, found that 57% of crashes were due solely to driver factors, 27% to combined roadway and driver factors, 6% to combined vehicle and driver factors, 3% solely to roadway factors, 3% to combined roadway, driver, and vehicle factors, 2% solely to vehicle factors and 1% to combined roadway and vehicle factors. (Harry Lum & Jerry A. Reagan (Winter 1995). "Interactive Highway Safety Design Model: Accident Predictive Module" Public Roads Magazine)

As the factors involved in collisions have been better understood, the term "accident" is sometimes avoided by some organizations, as the word can suggest an unpredictable, unpreventable event. However, although these events are rare in terms of the number of vehicles and drivers on the road, addressing the contributing factors can reduce the likelihood of collisions. That is why these organizations prefer the term "crash" or some other term.

After an Accident ... What Now?

- Move the car, if possible, to avoid blocking traffic and to protect it from further damage.
- Call the police if somebody is injured or killed, if the car cannot be moved, or if the accident involved a hit-and-run driver. The uninsured motorist coverage pays for a hit-and-run accident only if it is reported to the police.
- Get the other driver's name, address, telephone number, license plate number, driver's license number, and insurance information. Reciprocate by giving the other driver the same information.
- Write down the insurance company name and the policy number exactly as shown on the other driver's proof-of-insurance card. Insurance companies often have similar names, so one should make sure to get the correct company name.
- Get the names, addresses, and telephone numbers of any witnesses to the accident.
- Notify the insurance company as soon as possible. The company probably has a 1-800 number to report claims. If not, the motorist should call the agent. The agent or company will advise the motorist about seeing an adjuster and getting repair estimates. Also, the motorist should give the agent or company the names and addresses of any witnesses and anyone injured.
- If the claim was reported by phone, it should be followed up in writing as soon as possible to protect the motorist's rights under state prompt payment of claims laws.
- The insured should send the company copies of the accident report and any legal papers received regarding or about the accident.
- Cooperate with the company's investigation. The insured might have to submit a proof-of-loss form or have a medical examination.

If the other driver refuses to tell a motorist the name of his or her insurance company, the insured should get a copy of the police accident report. The accident report should list the other driver's name and insurance company. If the police did not investigate the accident, the driver's refusal can be reported to police.

Accidents Caused by Other Drivers

If a motorist is in an accident caused by another driver, the other driver's insurance company should pay the following costs, up to the policy's limits:

- repair or replacement of the car
- car rental while the automobile is being repaired
- medical and hospital bills
- wages lost because of an injury
- compensation for pain and suffering if anyone is hurt.

If the other driver's insurance won't cover all the medical bills, one should file a claim for the difference against their Personal Injury Protection (PIP) coverage, if available. For amounts over that, a motorist can claim against his or her uninsured/underinsured motorists (UM/UIM) coverage or the health insurance policy. If the other driver's policy won't cover all of a motorist's auto repairs, a driver can file a claim against his or her

collision or UM/UIM coverage for the difference (minus the deductible) between the damage to the motorist's car and what the other driver's policy will pay.

The other driver's insurance company may ask to sign a release to settle the claim and forgo future claims related to the accident. It is advisable to not sign a release until satisfied with the total settlement. One should get a letter from the doctor estimating the cost and length of future medical treatment. An attorney may need to be consulted before accepting a settlement. Under most state's law, a motorist has two years after an accident to either settle the claim or file a lawsuit. The law prohibits insurance companies from delaying payment of a claim in order to pressure the insured to sign a release. If it is believed that an insurance company is delaying payment as a means to pressure the insured, file a complaint with the department of insurance.

If the other driver denies fault, his or her insurance company may refuse to pay the claim. Independent witnesses could make a difference in getting the company to pay. It is important to get names, addresses, and telephone numbers of any witnesses to the accident. Make sure the insurance company knows about the witnesses. If the company continues to refuse to pay the claim, an insured can file a claim against his or her own insurance or an individual may have to go to court to resolve the issue. Before filing a claim with their own company, ask the agent or company's underwriting department how a claim might affect rates on renewal. A company cannot refuse to renew the policy solely because an insured had one accident in a 12-month period that was not the motorist's fault. However, if the accident affected the motorist's driving record, the insurer may consider it in determining rates, whether a claim was made on the accident or not.

Getting the Car Repaired

The insurance company will either have an adjuster inspect the car and calculate an estimate for repairs or ask that the insured provide repair estimates from mechanics and auto body shops. Some companies may give the insured a list of "preferred" shops, but they cannot require that an individual use a particular repair shop. On collision and comprehensive claims, the insurance company is obligated to pay only for parts of "like kind and quality" to those that were damaged. Insurance companies will pay for repairs or replacement only up to the car's actual cash value. Actual cash value is the amount the car would be worth if it weren't damaged.

If the repair estimates are more than the car is worth, the insurance company will likely "total" the car and pay its actual cash value rather than pay to fix it. Insurance companies typically use the National Automobile Dealers Association's Used Car Guide to determine the value of a car. The company's offer might not recognize the car's condition, special features, or value on the local market. Insureds should be prepared to negotiate with the company to get what they believe is a fair deal. A company might raise its offer if the insured can show that the car would sell for a higher price in the local area. Get written price quotes for a similar automobile from several used car dealers, or look in the classified section of the local newspaper for used car prices or at online car sites.

Sometimes the insurance company may want to total the car, but the insured prefers to have it repaired instead. The insured can keep the car if he or she is willing to subtract its salvage value from the insurance settlement. Make sure the cost to repair the car will

not exceed the car's actual cash value. To find out the salvage value, contact local salvage yards for estimates. If the insured and insurance company can't agree on the amount of a settlement, an appraisal can be demanded. Appraisal allows the insured and the company to hire separate damage appraisers. The two appraisers choose a third appraiser to act as an "umpire." The appraisers review the claim, and the umpire rules on any disagreements. The appraisal decision is binding as to the amount of the loss. If there is a dispute about what is covered, the insured can pursue a settlement of the coverage issue after the appraisal. The insured must pay for his or her appraiser and half of the umpire's costs.

Appraisal is available only in disputes between the insured and his or her insurance company. It is not available if the other driver was at fault and the insured disagrees with his or her company's offer.

Getting a Rental Car

If the motorist has more than basic liability coverage or another driver caused the accident, he or she should be able to get a rental car while theirs is in the shop.

- If the other driver was to blame, his or her liability insurance will pay for a rental car.
- If the accident was a hit-and-run or the other driver was uninsured and at fault, the motorist's UM/UIM property damage coverage will pay for a rental car.
- If the car was stolen and the insured has comprehensive insurance, the insurance company will provide a set amount each day, up to policy limits, for a rental car.
- If the car is being fixed or replaced for some other reason, the insurance company won't provide a rental car unless the motorist has rental reimbursement coverage.

Filing a Claim

Once a claim has been filed, State law often sets deadlines for the insurance company to act. Pay attention to differences from state to state. The company must respond within 15 days after receiving the claim in writing. It will probably ask that the loss be documented. After submittal of any requested documentation, the company has 15 business days to accept or reject the claim.

Once the company agrees to pay the claim, it must send the check or draft within five business days. A company that cannot meet these deadlines must send a notice explaining why. The company then has 45 days to either approve or reject the claim.

Note: The prompt payment law does not apply if another driver's insurance company is paying the claim. However, the company is required to act in good faith and to make a prompt and fair settlement. If the insurance company rejects a claim, it must explain the rejection in writing. If the company contends that the insured's policy doesn't cover the loss, one should ask to see the policy language that supports denial of the claim. A court usually will order the company to pay if the language is unclear and the policy could reasonably be read in favor of the insured.

Getting Help

If an insured has a problem with the insurance company, first he or she should try to resolve the problem. Often disputes are the result of miscommunication. Talk to the agent or a company representative. Often times state law requires most companies to have toll-free telephone lines for their policyholders. If still are unable to resolve the dispute, an insured can file a complaint with state department of insurance. The insurance department will notify the company of the complaint, ask for a detailed response, and send a copy of the company's response to the insured. The insurance specialist assigned to the complaint will send an explanation of the outcome to the insured, usually within 40 days after receiving the complaint. The insurance department has limited jurisdiction in some complaints. For instance, the insurance department cannot resolve questions of fact or determine liability (who is at fault in an accident). These issues generally must be resolved in court. However, even when insurance department jurisdiction is limited, their involvement may encourage the company to review the insured's issue more thoroughly. In addition, complaints and inquiries help the insurance department assist other citizens by identifying potential problems with insurance companies and agents.

SHOPPING FOR AUTO INSURANCE

Rates vary widely among companies, so it pays to shop around. Following are some tips that can be passed along to consumers to help them find the best deal for their money:

- Decide before shopping what coverages are needed.
- Consider choosing a higher deductible. The deductible is the amount the insured must pay before the insurance company will pay. Higher deductibles will lower the premium, but a person will have to pay more out of their own pocket if there happens to be a claim.
- Get price quotes from several companies. Make sure the quotes are for the same coverages.
- When getting a price quote or applying for insurance, potential insureds must answer questions truthfully. Wrong information could result in an incorrect price quote or could lead to a denial or cancellation of coverage.
- The agent should be asked whether the insured qualifies for any discounts the company might offer.
- Consider factors other than price, including a company's financial rating, complaint index, and license status. The financial rating indicates a company's financial strength and stability, and the complaint index is an indication of its customer service. Buy only from licensed companies and agents. It is against the law to sell insurance without being properly licensed.

Consumers can learn more about a company, including its license status, complaint history, and financial rating from an independent rating organization, by calling the state's Consumer Help Line or by visiting the state insurance department's website.

Insurance on the Installment Plan

Auto insurers in most states are required to offer installment plans. Some companies only offer payment plans through premium finance companies, which often charge high interest rates.

Prospective insureds should seek not only low rates but also low-cost financing. Ask who will provide the installment plan. Look for insurance companies that offer their own

installment plans. Ask about the down payment, the number of installments, interest or service charges, and the amount of the total monthly payment.
In many states, insurers and premium finance companies must give terms at least as favorable as these:

- For a 12-month policy, a 16.67 percent down payment and 10 equal monthly installments. If the policy is through the state's Automobile Insurance Plan Association, the down payment is 20 percent.
- For a six-month policy, 33.33 percent down, with four equal monthly payments.

Premium Finance Companies

Premium finance companies loan people money to pay their insurance premiums. Sometimes the only installment plan offered is through a premium finance company, which the agent selling the policy might own. The insurance agent must disclose if the installment plan is with a premium finance company and must give the premium finance company's name. If a motorist enters into a premium finance agreement with a premium finance company, he or she will pay the down payment to the agent or company. Be sure to get a receipt at the time of payment. The premium finance company pays the balance of the premium directly to the insurance company and then collects the amount financed, plus interest, from the insured in installments.

The loan agreement assigns power of attorney to the premium finance company for payments involving the policy. The premium finance company can cancel the policy if the insured falls behind in payments. If the insurance company cancels the policy for any reason, the premium refund goes to the premium finance company, which uses it to pay off the loan. The premium finance company will refund any remaining money. The finance company must send the insured any refund due within 20 days after receiving it from the insurance company. A premium finance company must have a license from the department of insurance. Licenses can be verified by calling the insurance department Consumer Help Line or by going on line. When dealing with a premium finance company, here are some things an insured should do to for self protection:

- Make sure the agent shows the cost of the insurance policy and the cost of financing the payment plan separately so as to see exactly what is being paid for. Do not enter into a premium finance agreement unless the charges and how the plan works are understood.
- Compare the premium finance company's charges to installment plans offered by insurance companies and to bank or credit card interest rates. It could be cheaper to pay for the policy with a credit card if the credit card has a lower interest rate than the premium finance company.
- If an insured enters into a premium finance agreement, make sure the agreement correctly identifies the financed policy. The agreement should show the policy or binder number, effective date of the policy, and the premium amount.
- Be sure to complete all the paperwork and sign and date the agreement before leaving the agent's office.
- Get a copy of the installment agreement. Federal truth-in-lending laws require the lender to provide a copy.
- Make the installment payments only by check or money order payable to the company named on the premium finance notice. If cash is paid, demand a receipt.

- If the insured or the insurance company cancels the policy, make sure the premium finance company pays any refund it owes.

Understanding Rates

State law and public policy law require insurance rates to be reasonable, adequate, not excessive to the risks for which they apply, and not discriminatory. Auto insurance companies in file and use states set their own rates and file them with the insurance department for review. Companies do not have to receive prior approval before using their rates, but if the insurance department determines that a company's filed rates are excessive, it can order the company to make refunds.

Factors that Affect Premiums

Companies may use a number of criteria to establish the premium. These include:

- **Age and, for younger drivers, marital status.** Male drivers under 25 and unmarried women under 21 have the highest rates. Drivers over 50 may get discounts.
- **Driving record and claims history.** A good driving record can save money. If a driver has accidents or tickets on their driving record, he or she will have to pay more for insurance. Companies may add surcharges to the premium for major convictions, some driving violations, and accidents that result in property damage. Some surcharges are mandatory and will apply to the premium for three years.
- **Where the car is kept.** Because drivers in urban areas have more accidents and auto thefts, their rates are typically higher than the rates for drivers in rural areas.
- **The type of car being driven.** Collision and comprehensive rates are highest for luxury, high-performance, and sports cars. Rates may also be higher for cars that damage easily or cost more to repair.
- **The car's primary use.** Rates are higher for cars driven to and from work or used for business than for cars driven solely for pleasure.
- **Credit score.** Companies may consider the credit score when deciding whether to sell the insured a policy and at what cost. A company cannot refuse to sell an applicant a policy or cancel or nonrenew a policy solely based on his or her credit.
- **Whether the motorist drove uninsured.** Companies may now charge more if a motorist drove uninsured in the state for more than 30 days in the 12 months before application for insurance. However, a company cannot otherwise charge more for liability coverage because of a prior lack of coverage.

Companies must file their underwriting guidelines with the department of insurance and update them each time they make a change.

Discounts and Surcharges

Discounts can help save money on premiums. Discounts vary by company. Following is a list of some of the discounts commonly available in several states:

- defensive driving and driver education courses for young drivers

- students with good grades
- parent or family whose young driver is away at school without a car
- airbags and automatic seatbelts
- automatic daytime running lights
- antilock brakes
- two or more cars on a policy
- driver age and annual mileage driven
- policy renewal with good claims and driving records.

If a motorist has a poor driving record, he or she can expect to pay more for insurance. Companies may add surcharges to the premium – some as high as 60 percent – for the following:

- accidents (the more accidents, the higher the surcharge)
- moving violations (speeding, etc.)
- involuntary manslaughter
- driving under the influence
- criminally negligent driving
- driving without a license or with a suspended license.

Losing Insurance

Companies may cancel or nonrenew a policy for a variety of reasons. Cancellation means the company terminates the policy before its expiration date. Nonrenewal means the company refuses to renew the policy when it expires.

A company must explain in writing its reasons for declining, canceling, or not renewing the policy. This explanation must include the incident or risk factor that violated the company's underwriting guidelines and the insurer's sources of information.

- An insurance company may not cancel an auto policy that has been in effect for more than 60 days unless
- failure to pay the premium
- filing of a fraudulent claim
- driver's license or motor vehicle tags are suspended or revoked (this also applies to other drivers who live with the insured or use his or her car).

During the first 60 days, a company may cancel a policy for any lawful reason, including a ticket or an accident. If the company cancels the policy because of an accident, it still must pay for covered damages resulting from the accident. The company must send a written notice to the insured at least 10 days before canceling the policy.

If either the insured or the company cancels the policy, the company must refund any "unearned premium." Unearned premium is the amount paid in advance that did not actually buy coverage. For example, if an insured paid a six-month premium of $600 and the policy is cancelled after one month, the company owes the insured $500 in unearned premium, minus any applicable agent or policy fees.

A company cannot refuse to renew a policy unless it has been in effect for at least 12 months. This means a company must renew a six-month policy to give the insured a full

12 months of coverage. The company must give 30 days' notice before not renewing the policy.

In most states, a company cannot refuse to renew the insured's policy because of

- weather-related claims, including damage from hail, floods, tornadoes, high winds, and hurricanes
- damage from colliding with animals or birds
- damage from gravel and other flying and falling objects (the company can raise the deductible if there are three such claims in 36 months)
- towing and labor claims (the company can refuse to renew towing and labor coverage if the insured has four such claims in 36 months)
- other claims or accidents that cannot reasonably be blamed on the insured, unless he or she has more than one of these claims in a 12-month period.

Sometimes an insurer will move the insured to another company in its company group. If a company moves the insured to another company, it must give 30 days' notice that it will not renew the original policy. If the company fails to give 30 days' notice, the insurance department can require the company to renew the policy for another year in the original company.

If the insured receives get a nonrenewal or cancellation notice, he or she should start shopping for new insurance immediately. Make sure to keep liability coverage uninterrupted to satisfy state financial responsibility laws. If a motorist still owes money on the car, the lender will usually require him or her to maintain collision and comprehensive coverages without interruption. If these coverages are cancelled or lost, the lender will buy single-interest automobile physical damage coverage and add the cost to the loan payment. This coverage is expensive and protects only the lender.

Rights against Unfair Discrimination

An insurance company cannot deny, refuse to renew, limit, or charge more for coverage because of an individual's race, color, religion, or national origin.

A company also cannot deny, refuse to renew, limit, or charge more for coverage because of age, gender, marital status, geographic location, disability, or partial disability unless the refusal, limitation, or higher rate is "based on sound underwriting or actuarial principles." This means the company would have to show valid evidence that an insured presents a greater risk for a loss than other people it is willing to insure. A company cannot nonrenew a policy because someone in the family has reached driving age.

In addition, a company cannot discriminate between individuals of the same rate or risk class in its rates, policy terms, benefits, or in any other manner unless the refusal, limitation, or higher rate is "based on sound actuarial principles."

Citizens may sue insurance companies for unfair discrimination, including denial of insurance. Suit must be filed in a Travis County district court. However, if the court finds the suit groundless, in bad faith, or brought for the purpose of harassment, the court could order the plaintiff to pay the insurance company's legal expenses.